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Editorial

The publication of the No. 4 issue of the Journal of Orissa Research Society was inordinately delayed because of financial constraints. However, we are glad to present the same for the scholars.

As usual we have tried to publish original research articles on new discoveries and areas of study. We have also tried to make it more illustrative to fulfill the demands of the articles.

We crave the induldgence of the scholarly world for the delay and hope that the No. 4 issue of the Journal would receive their support as before. We hope to be regular in our publication in future.

Editors

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SANKARJANG - A METALS PERIOD BURIAL SITE IN THE DHENKANAL UPLANDS OF ORISSA[1]

Not suprisingly, the study of prehistoric India centres on the largest and best-known body of information which scholars in the past century and a half have managed to glean, namely that surrounding large, conspicuous, northwestern sites such as Harappa, Mohenjodaro, Kalibangan, as well as several key settlements in and around Maharashtra, which have held the fascination, and have inspired the industry of archaeologists far more than the at first glance more modest, although, in fact, equally arresting sites of what Walter Fairservis once termed "uncivilized India", to the east.[2] Symptoms of an archaeological malaise in the latter region are manifest in the lack of even a single large scale excavation report, and in the existence of but a single monograph[3] (in contrast to the Harappan Culture) to represent the neolithic and metallic periods. Our intention here, however, is neither to belittle in any way the value of the work of many dedicated scholars who have furthered Indian prehistoric studies in extensively researched parts of India, nor deny that of the monuments themselves. Rather, we should like to draw attention to a little known, but fascinating archaeological site in what is now Orissa, which may serve as a bench mark (of, if not for the moment) for this region during the first millennium B.C.

Well-watered and temperate, Orissa must have been equally as favourable an environment for early man as were other parts of the subcontinent where sizeable and urban prehistoric settlements flourished at some time presumably during the third and second millennia BC. The climate is presently[4], and probably also previously was warm and semihumid; palaeoclimatic studies have concentrated on western and northern India, and the investigation of the situation in Orissa remains a pristine and promising domain for future studies.

Based in large part on randomly collected knapped and ground stone implements, often from neighbouring areas, over the years Orissan prehistory has revealed itself in little more than rare glimpses[5]. For whatever reason, collections of eastern pre-megalithic Indian stone artefacts seldom contain metal objects, and conversely, collections of local metallic artefacts rarely are mixed with stone ones[6], a situation which consciously or unconsciously has conditioned conceptions with regard to the composition of prehistoric assemblages here. The context at Sankarjang is relevant here. In the first reports of the find the excavator considered the finds to be of neolithic date.[7] The foreign and domestic relations of Sankarjang and the chronological/phaseological nomenclature are problems which are briefly treated below.

It was first in the 1920's that eastern India came into the spotlight of world archaeology as the

westernmost link in a complex of prehistoric cross-cultural relations which extended as far east as Japan. Briefly, with the aid of a series of at first glance strikingly similar South and Southeast Asian artefacts of diverse provenance, Robert von Heine-Geldern postulated in several learned articles that the quadrangular ground stone axe (Vierkantbeil), examples of which occasionally had been found in the East Indian country side, was the diagnostic artefact of the Austronesian people, to whose culture belonged a common language, the cultivation of rice and millet, the perforated stone knife for harvesting rice, the brewing of beer from rice or millet, the raising of buffaloes and pigs in part for sacrificial purposes, the custom of head hunting, megalithic monuments, houses raised on pilings, bark cloth, and the outrigger canoe. It was the Austronesians who brought the full neolithic to the west, around 2500 - 1500 BC.[8] Striking formal and technical similarities of the stone artefacts of places as disparate as China, India, Korea, Laos, Malaysia, Indonesia, and the Philippines challenges us to explain the identity of their makers, and the web of international relations of the age synchronically and diachronically.

Increasingly aware of the difficulties inherent in the intercultural hypotheses generated and catalysed by his studies, in 1945 Heine-Geldern revised his Austronesian concept for the neolithization of Indonesia. For in light of numerous new finds it no longer could sufficiently account for "....the differences between the various branches of the Quadrangular Adze Cultures of eastern Asia".[9] Heine-Geldern's reconsideration by no means signifies a denial, however, of all his work in this subsection of ethnoarchaeology, and his attempts to trace certain cultural traits prevalent among the peoples of Indonesia back to the time of the early quadrangular adze users still serves as a model despite modifications imposed by advances in the research. Nonetheless, the discovery of new find-complexes, stratified pottery, as well as physical methods of dating have eroded the basis of his method, especially with regard to international contacts.[10] The distribution of so-called shouldered axes also played a major role in Heine-Geldern's theories on the migrations of the Austronesians.[11] During the last few years, however, the publication of many prehistoric (presumably chronologically diverse) metallic axes and axe-like ingots, not to mention stone adzes from different parts of South and Southeast Asia, which are variously shaped, but still which may be termed "shouldered", demonstrates that this artefactual name/classification, as such, presently is at best an ill-defined diagnostic indicator of age.[12]

Nor does the ground stone technique, in and of itself aid in fixing the chronology and distribution of the large number of stray-finds and their associated culture(s). Despite an entire series of studies which have sought to illuminate the prehistoric South and Southeast Asian inter-connections, especially the origin and historical significance of ground quadrangular implements, it is difficult at present to advance the discussion beyond a purely antiquarian level, as Heine-Geldern succeeded in doing.

In 1949 E. C. Worman, Jr. attempted a first synthesis of the neo-lithic of India as a whole, on the basis of the available literature, at a time when Brahmagiri was the only published excavated site of this stage of civilisation on the subcontinent. "There is....no Indian site or implement yet known to this writer that can

surely be called Neolithic".[13] Owing to the large number of ground stone artefacts known from eastern India, and the implications for inter-connections with the Far East, he concentrated his efforts here. A key impetus for Worman's study was a dissatisfaction with the usual practice of summarily treating all ground stone artefacts as neolithic, which chronologically and historically impacts this category of finds. Given the lack of field investigation, and notwithstanding its initial undisputed success, Worman's study must be recognised for what it is - a pioneer study which per definition is limited in range.

Since then the literature which has accumulated on the prehistory of eastern India consists essentially of brief summaries in general works on the history of the region, short find notices, and a few rare articles. Moreover, A.H. Dani's monograph *Prehistory and Protohistory of Eastern India* (1960), the most concentrated treatment in this field of study, offers little more in essence than a discussion of the distribution of various artefact types, which cannot be related to a well-defined cultural context.[14] Neither this nor other related studies lost sight of the relations to Southeast Asia.[15] All treatments of eastern Indian prehistory suffer from a lack of well-observed datable and published find contexts, and Orissan prehistory, the subject of this paper, for this same reason undifferentiated, its story fragmented. Several obstacles hinder the efforts of prehistorians here, not the least of which is the possible insubstantiality of the early settlements themselves. The serious erosion, and in fertile regions destruction owing to subsequent intensive settlement and agricultural land use undoubtedly have taken their toll. But until recently the main problem has been a lack of active and systematic exploration in this promising but elusive arena of prehistory and early history.

Given the lack of a well-dated cultural sequence in the excavated sites Pandu Rajar Dhibi, Sonpur, Chirand, and Kuchai (see below) in eastern India, the chronology of the entire ground stone industry, not to mention the question of the direction of the underlying interregional cultural impulses, is in part conditioned by that of stratified pottery, and stone implements from sites in distant East and Southeast Asia, in particular those from China which are better known.[16] The several C 14 determinations indicate a clear and definite chronological priority for the onset of ground stone implements of the Cishan-Peiligang culture (late 6th millennium) and the Dawenkou culture (4th and 3rd millennia) of eastern China.[17] This manifold topic, embracing as it does the origins of eastern Indian settlement culture and several cultures to the east, clearly exceeds the possible scope of the present study, and indeed, is truly open-ended. With regard, however, to the ground stone facies of East India, in his monograph on this same material Dani [18] (again based on only nominally provenanced artefacts) suggests that Indian types originated in the west, rather than in the Far East, although in the final analysis, little evidence can be brought to bear on this question.[19] F.R. Allchin ambivalently has drawn attention to possible impulses both inside and outside of India.[20] As successive studies accumulate, the picture of the cultural background concomitantly in complexity, although not necessarily in clarity. The amount of hard archaeological information in eastern India has lacked the concreteness needed in order to support the weighty historical hypotheses with regard to international contacts and migrations.

The Sankarjang Mounds

In light of the research situation sketched above, and particularly in the context of Orissan prehistoric studies, the results of a rescue excavation, undertaken in approximately the geographical centre of the state (Fig. 1 & 2), are of profound importance in demonstrating its archaeological potential. The story opens in 1971 with a herdsman, Shri Somnath Biswal from the revenue village of Sankarjang, who spotted some curious large and smooth stone artefacts which protruded out of the side of a small hillock near his home.

Before long news of his discovery reached officials in Bhubaneswar. The authorities of the State Museum acquired Shri Biswal's collection, which now is partly on display, partly on deposit in the Museum's anthropological department. In the following year P.K. Ray, Superientendent of the State Archaeology Orissa, tested this single-culture site, and discovered a hitherto unknown kind of deposit, i.e., group burials or ossuaries which contained the skeletal remains of several individuals (cf. Fig. 19)[21], a variety of knapped and ground stone adzes, copper bangles and small implements, as well as beads. The ground stone objects proved the finest technically and artistically yet to be excavated in South Asia. Moreover, they embody the largest find of Indian stone artefacts from a sealed and excavated context hitherto to come to light on the subcontinent.

The main group of mounds (20 52'08"N; 84 59'19"E) lies roughly 300 m. southeast of the peak of the Jiminia hill, and north of a usually dry stream locally called the Pandiani, which ultimately feeds the Brahmani. Situated on the eastern fringe of the Athmallik hills, the cemetery rests on a lateritic shelf at an altitude of some 200 m. above sea level.[22] In terms of its agricultural potential, the area is designated as Goda land of the third class, i.e., highlands situated near foothill areas, or close to forests, and generally with rocky strata. Such areas only produce crops, in this case rice, once every two or three years[23], and this land thus supports only a sparse (11-25 persons/km2) population. Were the agriculture here intensive, then the mounds would have long since vanished.[24] A small number of poor cultivators and herdsmen now inhabit the nearby hamlets. Around the three mounds which were excavated the terrain is eroded, and is comprised of numerous other hillocks about 6 to 10 m. in diameter, and 1 to 1.5 m. in height (Fig. 18). Were it not for the finds from the three mounds investigated and the finds collected by Shri Biswal, no one would have suspected that the hills were man-made. The bases of the burial mounds seem to rest on the prehistoric ground level. The main group of mounds extends over an area measuring some 500 x 500 m. and is crossed by a track which also crosses the Pandiani. The track continues, ending at an abuttment about 200 m. SSW of the peak of the Jiminia hill, the dominant topographic feature in the immediate area. On the west side of the track 38 hillocks were tallied, and on the east side 15. The mounds which P.K. Ray investigated were the same size as those just described. Only a few metres to the north of the excavated mounds the irregularly eroded abuttment of an adjacent and slightly elevated plain forms a ragged line, the plain itself consisting of the same poor, detrital, red, hard-pan soil covered with some scrubby vegetation. Some 15 mounds were sited a few hundred metres to the west of the main group.

Associated habitational debris could not be located; our search admittedly was neither exhaustive nor conclusive.

During brief visits in 1985 and 1986[25], with no difficulty we located the three mounds excavated by Ray and his colleagues in 1972, now simply small patches of ground from the original 10 x 10 m. squares. "A" lies some 10 m. west of the road, and south of the abuttment. "B" and "C" lie on the east side of the road, also just south of the abuttment, and their balks are still visible. Shri Biswal's collection seems to have derived from "A" to judge from the excavation photos of the State Archaeology, and his own testimony; pits from illicit excavations could still be seen in this mound in 1972. The mounds not excavated show no sign of having been robbed. During the course of the excavations no further stone bars (below) came to light in the three mounds.

No mound encirclement of stone, or other recognizeable anthropogenic feature was observed during Ray's investigation of the hillocks. They were, moreover, indistinguishable from the others to the south and to the west. Each of the mounds showed three strata atop the virgin soil (Fig. 10). The uppermost was composed of a detrital deflated gravel with cankerous nodules (lateritic ooideas). Below this another find-free level was composed of a packing of small quarzite chips and clay. The find layer itself consisted of a reddish clayey soil. The burials seem to have taken place in simple pits whereby the lithics lay together in an irregular scatter apart from the bangles and skeletal fragments. The presence of teeth and fragmentary human mandibles in the deposits leaves no doubt even to a non-anthropologist as to the actual identity of the bones, although the possibility of burial offerings of meat, or leftovers from a funerary meal might conceivably explain some of the unidentifiable bone fragments. And in fact, one herbivore tooth was readily identifiable among the finds. Otherwise no ashes or other remains provide direct evidence for any mortuary-related activity. Doubtless the stone adzes and metallic grave goods derived from the same stratigraphic/ chronological units. According to Shri Biswal's description we also can assign the stone bars to the same context. Moreover, knapped as well as polished adzes often of the same type lay side by side, the one being simply the unfinished version of the other, and no stratigraphic indication exists of different phases for the context. The stratigraphy reportedly was identical in all three mounds. Ray understands the remains to represent secondary burials, although whether the bangles and numerous beads would have survived the transfer of the remains to their final resting place is a difficulty with this interpretation, and the graves (especially grave "A") may simply be badly disturbed.[26] The following catalogue provides an idea of the objects recovered.[27]

Stone bars

TYPE I

1. 33.5 x 7.4 x 1.8 cm, polished basalt, use-wear on obv. above and below, primary musical tone : c. 2750 Hz. (c.F) (Fig. 3). - State Mus. Orissa (73.22.1). - Strayfind.

2. 39.1 x 7.7 x 6.4 cm, polished dolerite (?), primary tone : c. 2050 Hz. (G). - State Mus. Orissa (73.22.2). - Strayfind.

3. C. 38.5 x C. 7.5 cm, polished stone. - After a field photo. Same as no. 2 ? State Mus. Orissa (?). - Strayfind.

4. 39.4 x 8.9 x 2.2 cm, polished basalt, excellent workmanship, use-wear on obv. mostly on lower end, primary tone : c. 2050 Hz., (G). - State Mus. Orissa (73.22.3). - Strayfind.

5. 16.3 (pres.) x 7.4 x 1.9 cm, polished basalt, slight use-wear on obv. on the upper end, primary tone : c. 4100 Hz. (c. c#). - State Mus. Orissa (73.22.14). - Strayfind.

6. C. 34 x c. 6.9 cm, polished stone. - After a field photo. State Mus. Orissa (?). - Strayfind.

7. C. 30.3 x c. 6.3 cm, polished stone. - After a field photo. State Mus. Orissa (?). - Strayfind.

TYPE Ia

8. 39.9 x 7.8 x 2.8 cm, polished basalt, use-wear on obv. on both ends, primary tone : c. 2700 Hz.(C#) (Fig. 4). - State Mus. Orissa (73.22.6). - Strayfind.

9. C. 37.2 x c. 8.2, polished stone, broken at one end. - After a field photo. State Mus. Orissa (?). - Strayfind.

TYPE Ib

10. 21.5 x 8 x 2.5 cm, polished basalt, clear use-wear on obv. at the lower end, primary tone : c. 3475 Hz. (c. A) (Fig. 5). - State Mus. Orissa (73.22.13). - Strayfind.

TYPE II

11. 40.6 x 8.4 x 2.6 cm, ground basalt, slight damage on both faces, primary tone : c. 975 Hz. (c. B (=H) (Fig. 6). - State Mus. Orissa (73.22.4). - Strayfind.

12. 31.8 x 7.4 x 3.8 cm, knapped basalt. - State Mus. Orissa (73.22.5). - Strayfind.

13. 36.1 x 8.4 x 2.3 cm, ground dolerite (?), possible use-wear on obv. above and below, primary tone : c. 1300 Hz. (c. D#). - State Mus. Orissa (73.22.7). - Strayfind.

14. 39.6 x 9.7 x 2.4 cm, ground basalt, worn, primary tone : c. 2650 Hz., (c. C#). - State Mus. Orissa (73.22.8). - Strayfind.

15. 29.3 x 5.9 x 2.7 cm, knapped basalt (Fig. 7). - State Mus. Orissa (73. 22.9). - Strayfind.

16. 38.6 x 8.3 x 3.2 cm, knapped, partly ground dolerite (?), primary tone : c. 1375 Hz. (c. E). - State Mus. Orissa (73.22.10). - Strayfind.

17. 39.4 x 9.3 x 2.6 cm, knapped partly ground dolerite (?), primary tone : c. 2900 Hz. (C#). - State Mus. Orissa (73.22.11). - Strayfind.

18. 35.3 x 8.7 x 3.6 cm, knapped dolerite (?), symmetrical in cross section, primary tone : c. 1950 Hz. (A#). - State Mus. Orissa (73.22.12). - Strayfind.

19. 17 (pres.) x 6 x 2.8 cm, knapped dolerite (?). - State Mus. Orissa (73.22.60). - Strayfind.

20. 16.5 (pres.) x 6.5 x 2.5 cm, knapped dolerite (?). - State Mus. Orissa (73.22.62). - Strayfind.

Stone Adzes and Axes

TYPE I

21. 25.6 x 6.9 x 3.5 cm, chipped basalt (Fig. 8). - State Mus. Orissa (73.22.64). - Strayfind.

22. 27.4 x 6.8 x 2.4 cm, ground basalt (Fig. 9). - State Mus. Orissa (73.22.65). - Strayfind.

TYPE Ia

23. 14.7 x 3.6 x 1.6 cm, ground basalt (Fig. 10). - State Arch. Orissa (2).

24. 8 (pres.) x 4 (pres.) x 2.1 cm, knapped basalt. - State Arch. Orissa (3).

25. 14.5 x 4.5 x 2.7 cm, chipped basalt - State Arch. Orissa (4).

26. 16.2 x 4.2 x 2 x 1.7 cm, chipped basalt, edges only partly smoothed. - State Arch., Orissa (5).

27. 16.2 x 4 x 2.1 cm, chipped basalt, broken in the middle. - State Arch, Orissa (6).

28. 19.8 x 5.7 x 2.7 cm, ground basalt, not completely finished. - State Arch. Orissa (7).

29. 16.8 x 4.9 x 2.4 cm, chipped basalt. - State Arch. Orissa (8).

30. 18.1 (pres.) x 4.7 x 2.1 cm, ground basalt, cutting edge broken away. - State Arch. Orissa (9).

31. 18.5 x 4.8 x 2 cm, ground basalt, slight recent chipping. - State Arch. Orissa (10).

32. 17.3 x 4.7 x 2.4 cm, partly ground basalt. - State Arch. Orissa (11).

33. 16.2 x 4.8 x 2.1 cm, chipped basalt. - State Arch. Orissa (12).

34. 15.7 x 4.2 x 1.8 cm, ground basalt. - State Arch. Orissa (13).

35. 15.1 x 4.2 x 1.7 cm, ground basalt. - State Arch. Orissa (14).

36. 16.5 x 5.3 x 2.2 cm, ground basalt. - State Arch. Orissa (15).

37. 17.6 x 4.5 x 2.3 cm, partially ground basalt. - State Arch. Orissa (16).

TYPE II

38. 12.9 x 5.9 x 3.6 cm, polished limestone or weathered basalt, butt damaged and/or unfinished (Fig. 11). - State Arch. Orissa (1).

TYPE III

39. 9.7 x 3.3 x 2.5 cm, ground basalt (Fig. 12). - State Arch. Orissa. (17).

40. 8.8 x 3.3 x 2.4 cm, ground basalt. - State Arch. Orissa (18).

41. 9 x 4.1 x 2.1 cm, ground basalt. - State Arch. Orissa (19).

42. 6.5 x 3 x 1.9 cm, basalt, edge ground and polished. - State Arch. Orissa (21).

TYPE IV

43. 5.9 x 5.1 x 1.8 cm, basalt, cutting edge ground possible use-polish on the cutting edge (Fig. 13). - State Arch. Orissa (20).

44. 5.4 x 3.9 x 1.6 cm, basalt, cutting edge ground. - State Arch. Orissa (22).

Bangles

Type III bangles [28] are made of copper wire which has been flattened slightly by means of light hammering so that it in cross section is hemicircular, quadratic, barrel, or lozenge-shapped. The patina is usually thin, dull, patchy, and ranges from green to dark green. No traces of wear are visible. Type III bangles from Sankarjang tend to be slightly larger (average O.D. 6.6 cm) than is usual (6 cm) for this type in India.

45. O.D. 7.2 cm, I.D. 6 cm, wire D. 0.5 c 0.35 cm, 24 gm (Fig. 14). - State Arch. Orissa (1).

46. O.D. 6.3 cm, I.D. 5.4 cm, wire D. 0.4 x 0.45 cm, 15 gm (Fig. 14). - State Arch Orissa (2).

47. O.D. 6.3 cm, I.D. 5.3 cm, wire D. 0.4 x 0.4 cm, 20 gm (Fig. 14). - State Arch. Orissa (10).

Type V bangles, which not unique to Sankarjang, occur at this site in such numbers that they are distinguished here as a new type in terms of the typology for all Indian prehistoric metal-work. They are formed of relatively thin wire which is circular in cross section. The patina is the same as that of type III bangles from this site. A few prehistoric parallels occur in Haryana.[29]

O.D.	range	4.7-6.8 cm
	mean	6.01 cm
D. of wire	range	0.3-0.6 cm
	mean	0-38 cm
Weight	range	12-20 gm
	mean	16.9 gm

Examples at Sankarjang : 19 excluding small fragments

48. O.D. 5.8 cm, I.D. 4.7 cm, wire D. 0.5 cm, 19 gm (Fig. 15). - State Mus. Orissa (73.22.69). - Strayfind.

49. O.D. 5.8 cm, I.D. 5 cm, wire D. 0.5 cm, 18 gm (Fig. 15). - State Mus. Orissa (73.22.70). - Strayfind.

50. O.D. 5.8 cm, I.D. 4.9 cm, wire D. 0.4 cm, 19 gm (Fig. 15). - State Mus. Orissa (73.22.71). - Strayfind.

51. O.D. 5.7 cm, I.D. 5 cm, wire D. 0.5 cm, 12 gm (Fig. 15). - State Mus. Orissa (73.22.72). - Strayfind.

52. O.D. 5.4 cm, I.D. 4.5 cm, wire D. 0.5 cm, 20 gm (Fig. 15). - State Mus. Orissa (73.22.73). - Strayfind.

53. O.D. 5.6 cm, I.D. 4.7 cm, wire D. 0.4 cm, 14 gm. - State Mus. Orissa (73.22.74). - Strayfind.

54. O.D. 6.8 cm, I.D. 5.8 cm, wire D. 0.5 cm, 14 gm, one end broken off. - State Arch. Orissa (3).

55. O.D. 6.6 cm, I.D. 6.1 cm, wire D. 0.3 cm, 13 gm, heavily corroded, corrosion broken away in places. - State Arch. Orissa (4).

56. O.D. c. 6.2 cm, wire D. 0.4 cm, 9 gm, one end broken off. - State Arch. Orissa (5).

57. O.D. 6.6 cm, I.D. 5.5 cm, wire D. 0.4 cm, 18 gm, heavily corroded. - State Arch. Orissa (6).

58. O.D. 5.9 cm, I.D. 5 cm, wire D. 0.3 (measured at an uncorroded place). 12 gm, heavy corrosion, broken away in places. - State Arch. Orissa (7).

59. O.D. 6.1 cm, I.D. 5.2 cm, wire D. 0.5 cm, 16 gm. - State Arch Orissa (8).

60. O.D. 6 cm, I.D. 5 cm, wire D. 0.4 cm, 16 gm. - State Arch. Orissa (9).

61. O.D. 6.3 cm, I.D. 5.2 cm, wire D. 0.5, wire D. 0.5, 15 gm, heavily corroded, one end broken off. - State Arch. Orissa (11).

62. L. (pres.) 5.6, wire D. 0.5 cm, heavily corroded. - State Arch. Orissa (12).

63. O.D. (pres.) c. 5.5 cm, wire D. 0.6 cm, 13 gm, heavily corroded, one end broken off. - State Arch. Orissa (13).

64. O.D. (pres.) 6.1, wire D. 0.4 cm, 14 gm, one end broken off. - State Arch. Orissa (14).

65. L. (pres.) 5.6 cm, wire d. 0.4 cm, 15 gm, one end broken off. - State Arch. Orissa (15).

66. L. (pres.) 5.7 cm, wire D. 0.4 cm, one end broken off. - State Arch. Orissa (16).

Toiletry implements or small tools

67. 10 x 1.6 x 0.4 cm, 16 gm, one end irregularly hammered flat, squarish in section (Fig. 16). - State Mus. Orissa (73.22.79). - Strayfind.

68. 10.8 x 0.4 x 0.4 cm, point, squarish in section . - State Mus. Orissa (73.22.80). - Strayfind.

69. 7.9 x 0.3 x 0.3 cm, point, circular in section slightly bent. - State Mus. Orissa (73.22.81). - Strayfind.

Stone Beads

Representative sampling of beads in carnelian and soft stone different sizes. - State Arch. Orissa (no nos.).

In addition to the foregoing list, a few hundred grames of fragmentary metal bangles (type V), and, of course, the skeletal remains, as well as teeth also were excavated. Poorly preserved upon their discovery, the several thousand skeletal fragments are difficult to study, although in the godown of the State Archaeology they have been inspected. It is at least clear that the number of fragments found indicated the presence of several interred individuals. No other organic materials were recorded.

The source of the copper from which the metal objects are made is unknown, and the northern-lying Sundargarh, Sambalpur, Bolangir, and Mayurbhanj districts of Orissa, the nearest known sources, lie some distance (125 km) away; prospection has revealed no doposits of copper ore in the Dhenkanal District itself.[30] This observation raises the likelihood of trade. What the local inhabitants possibly might have bartered against the imported copper can only be conjectured.

Lithophone ?

The function of the unique stone bars, the most attractive and interesting of the finds deserves our attention. Attenuated, with precisely smoothed faces and corners, the finest are finished to a machine-like and metallic perfection. Seen in a profile view, those of type I very subtly are transversely gabled a short distance in from both ends on the reverse face (Fig. 3). Both ends and the edges of the two faces as well are squared off; such objects differ from adzes/axes in that they have no cutting edges. The grooving of the side edges at the upper end of Type I stone bars is difficult to explain in terms of its function, and may well have served as a means of hafting the objects. A further observation is that as in the case of the Sankarjang adzes, some of the bars are only roughly formed, and the cavities not yet worked out, for example, no. 15 of type II (Fig. 7). The question of the position in which the bars rested when in use is directly linked to the question of their function. The nature of the usewear on the bars provides clear indications for their interpretation.

These *documents humains* are the sonorous parts of an early musical instrument, a lithophone or more likely two or more such instruments.[31] Several pieces of evidence can be cited : (1) The bars all possess excellent resonant properties, and when struck, especially at either end give a clear and loud tone.[32] (2) Equally as important, in the case of literally all of the type I, Ia, Ib, and possibly certain type II bars on the lower end of the obverse surface, the stone is bruised and worn as if repreatedly struck with an object not as hard as the stone. This use-wear is clearly visible to the naked eye, particularly when viewed in a raking

light (Fig. 17). Of all the bars no. 10 shows this wear most clearly. 3) Finally, the stone bars cannot be convincingly interpreted as any other implement.

The lithophone of this period could be reconstructed hypothetically using the metallophone of the modern western world, the instruments of the Southeast Asian Gamelan orchestra, or the African xylophones as models.[33] Thus, the bars would have lain horizontally on a frame, perhaps of bamboo. The gables on the reverse faces enhance the resonant properties of the bars enabling a clearer tone, and minimize the dampening of the resonance by the surface upon which the bars rest. But not all the bars which show use-wear also have gables on the reverse (cf. Fig. 4). After the model of the western metallophone, the order of the bars ascending or descending in terms of their tone for each instrument is one possibility. Although two of the stones possess the same primary tone frequency (No. 2 and 4 : G) their tones differ owing to their varying overtones. Stone bars of the types I and II differ from each other to such an extent that we perhaps are dealing with two or more instruments. In any case, the production of the bars with compatible regular tone qualities and intervals must have required great skill and patience.

Single stone chimes and sets containing 16 stones date even into the second half of the second millennium BC in China, and are still in use as a Confucionist ritual instrument.[34] They reached their highest development in Southeast Asia. To judge from simple Vietnamese prehistoric lithophones of considerable size, the stones by no means need be smoothed.[35] The playing of perhaps simple musical instruments brings to mind the comments of Felix Mendelssohn, who wrote of the performance of a Russian named Gusikov that, ".....the skill of the man is no less than that of any virtuoso in the world, and with his wooden and straw instrument, he is every bit as stimulating as many a musician even playing a piano, in fact, owing to the very simplicity of his instruments."[36] The lithophone had few descendants among the music instruments of India and may well have gone the same way in Orissa as Richardson's rock harmonica (also of basalt) and F. Weber's Lithokymbalon in 19th Century Europe.[37] The melodies of our Orissan lithophone we will never know.

Discussion

Common in the literature on Indian prehistory is the treatment of ground stone "neoliths" as objects typical of the New Stone Age [38], a practice which deserves qualification in order to conform with ethnographic and archaeological research. Until the term "neolithic" is defined for specific sites in East India in terms of economy, artefactual assemblages, absolute chronology, and in contrast to other phase-nomenclatures infinite chances for misunderstandings can arise. In Sankarjang the stratification of metallic objects together with those made of ground stone is by no means unique. For exmple in Taradih, Sonpur, and Chirand in Bihar the ground stone technique persists as attested by considerable numbers of examples in Iron Age contexts, the stratigraphy of which is relatively uproblematic.[40] Early historic occurrences and recent ethnographic observations of the actual use and production of ground stone axes raise the question of an unpredictably telescoping chronology. One may also recall as collateral evidence that knapped stone implements are entirely characteristic of Indian pre-megalithic

India, as known from several contexts.[41] There is little reason, and no good one to assume that the stone implements found in Metals Period levels are always heirlooms.

Although ground stone implements in India occur in contexts which in terms of economic and chronological criteria universally and considered to be Neolithic (Mahagara and Burzahom), this fact helps us with the dating of the objects from Sankarjang only indirectly. In any case, the commonly misused and obfuscating term "neolith" is so embedded in the literature that it may resist even the most determined attempts to finally do away with it, although for all of the reasons listed above it should be abandoned as misleading.

To judge from the limited number of lithic artefact types at Sankarjang, their occurrence solely here, and the same few shared production techniques, we are dealing with a single-culture site. For the dating, parallels for the lithics can be cited which indicate a dating roughly in the second millennium BC [42], but radiocarbon determinations point to a first millennium BC dating.[43]

The sleek lines, precisely formed surfaced, corners as well as a geometric regularity and polish of the stone bars from Sankarjang are toreutic characteristics. These objects are thin to the extent that fashioning them must have been a ticklish affair, owing to the inherent tensile strength of the stone. In the case of type I bars the limits of the material have been reached, an indication of the extraordinary skill of the handworker. Here the existence of metallic prototypes, none of which have survived, seems best to explain the form of the stones. On the other hand, aside from the angular type of "Shouldered" adzes (Duff type8), analagously there is little similarity with the early Indian metallic and lithic axes/adzes, an observation which could be taken to weaken this suggestion. With regard to the contemporaneity of metal and stone goods, Dani's idea that complicated, facetted notches in ground stone objects could only have been produced with the help of metallic saws and chisels[44] helps to explain the means of notching the type I stone bars. While no such tool marks per se are visible on the bars from Sankarjang, Dani's suggestion is still well taken for the reason stated above. Nor do the adzes and axes from Sankarjang show indisputable traces of use-wear.[45]

Local basaltic rock may have been the main material for the lithics from Sankarjang[46]; none are silicic, although there is no lack of hand-sized lumps of white quartz at this site. It seems that the highly developed lithic technique here does not correlate with a greater selectivity of the kind of stone used. We spotted no grinders at Sankarjang suitable for use in the production of the ground stone adzes or the stone bars.[47] Although often visible on the stone implements are traces of chipping where the grinding is less thorough, the Sankarjang lithics on the whole show far more careful finishing, and are more regular in form than other subcontinental examples. Usually their entire length is ground, as opposed to those from the largest collection from the surrounding area (collected mostly in nearby Bihar) which are ground only at the cutting edge.[48]

While the veil of obscurity cannot be lifted for the interpretation of the finds by archaeology itself, ethnographic parallels illuminate the subject at least indirectly. Thus, in general, stone axes/adzes were more than simply useful tools, and played a dominant role in the social and political

life of Southeast and presumably South Asian societies. The exchange of such objects in ceremonial contexts was a central part of the struggle for prestige, analogously for example, in New Guinean tribal society.[49] There the exchange of axes and other wealth items was necessity for fulfilling socially defined obligations in connection with marriage, birth, sickness, death or for maintaining peace. This function is all the more likely in the case of axes/adzes in semiprecious stones, such as those from Southeast Asia, which often are ill-suited for daily use. The presence of great numbers of stone artefacts in a funerary as in Sankarjang, in itself is on the most basic level of interpretation an indication of wealth. More specifically here on the strength of the observations on the use-wear, we may pose the question were the adzes and stone bars perhaps specially created funerary offerings, actual grave goods, or simply equipment for funerary rituals? If ceremonial offerings be deemed efficacious, we also might ponder that the (presumed) ones from Sankarjang actually are limited solely to inanimate stone and metallic implements, and not food or other organic objects, universal for offerings or cultic rites. Finally, the connection between music instruments, as in the case of our lithophone, and social events and ceremonies is ubiquitous.

As for the identity of those interred in Sankarjang, we can offer only a few suggestions. The teeth recovered in the excavation belong to four adults and five children (below), and all but one may be of Mongolian racial stock. The great care taken in the fashioning of the lithics may be taken as an indication of a high social rank of the interred, although without further excavations there is no way to test this idea. Whether the grave goods belonged to the interred or were prepared by others cannot be decided.

As to the number dead inside the mounds only indirect indications exist. The large number of bangles and the dental remains suggest several burials. If modern fashions, however, have any bearing on the matter, well-dressed Orissan ladies may wear up to 20 bangles on one arm, and the number of bangles found gives no clear indication as the number of burials. In any case, there are no characteristics of the burials and their remain which link the interred to the later local population.

Except the bangles, few of the remains from Sankarjang are comparable with other excavated objects on the subcontinent. Type V bangles, a case in point, are too plain to be taken as convincing evidence for interregional connections, and most likely occur ubiquitously. Furthermore, of the entire assemblage in Sankarjang only two of our type IV round-butted axes compare with those of Dani's Bengal-Orissa complex.[50] The closest parralles for the stone bars are perhaps the so-called blanks from Harichandanpur and Sardapur in the Dhenkanal district, which in fact are not very similar.[51] Other parallels with lithics from the eastern part of India are few, and of a rather general nature.[52] The exception is the type I adzes, which some scholars have called "bar celts", a misnomer, however, since none exceed 20 cm in length.[53] Significantly, the well-known, small, angular, shouldered stone axes, such as those from Singhbhum which were first illustrated by Valentine Ball[54] are absent. Nor are the typically heavy eastern Indian lithic axes present, which are lenticular in cross section.[55]

Foreign parallels exist for the general shapes and details of execution of certain Sankarjang lithics, especially the large stone bars, even if they are not such that we can speak of clear evidence of imports to Orissa from lands to the east. Most of the lithic

comparanda from Southeast Asia, however, are strayfinds. The quadrangular axes, as at Sankarjang are simple in their form, and occur as distantly as Europe.[56] Nonetheless, the best parallel for the type I stone bars is a long (L. 30.2 cm) ceremonial adze of soft stone ("serpentine") from the isle Tre in the Golf of Tonkin in Viet Nam.[57] Similar are the long and slim proportions, as well as the notching of both sides at the upper ('butt') end. Such ceremonial objects bring us back to the point of departure - the interconnections between the east and west, which now take on a greater concreteness with the finds from Sankarjang. Considering the stone bars, the dental remains, as well as the copper bar celts and bar celt-ingots from India on the one hand, and Southeast Asian Parallels, on the other[58], there is good reason to see contacts with Southeast Asia at this time, even if they cannot be articulated in the historicizing fashion desired. At least it seems clear that in the later prehistoric period that Orissa looks more toward the East than to the West. Chronological grounds somewhat of an obstacle in equating the population with the Austronesians.

On the basis of the present knowledge of the geological/agricultural situation, one may assume that Sankarjang lay in a rather poor area, if this change did not take place following the period of the cemetery. Sometime following our visit to Sankarjang further groups of hillocks were reported.[59]

Still a vexing problem is the relation of the culture known at Sankarjang - one known only from grave goods - with the those in the neighbouring regions. This is true of the best known neolithic site, that in Kuchai, which B.K. Thapar excavated in the 1960's.[60] Other excavations in Barudih (Bihar), Gunyana (Dist. Mayurbanj)[61] on their publication may shed further light on the material culture of the neolithic and subsequent periods in Orissa. On a more positive note, now, in addition to the site of Asurgarh (near Manmunda, Dist. Phulbani), where B.K. Rath has collected sherds of early handmade, reddish-brown painted, leather-coloured pottery.[62] Also a white painted burnished grey ware with hatching similar to parallels from Pandu Rajar Dhibi (late second mill.) and even distant Ahar (late 3rd/early 2nd mill.) are an unexpected expression of the metallic age on India's eastern coastal region.[63] These and post-fired red ochre painted black and red ware from Golabai, P.S. Jankia, Dist. Puri suggests that the lack of information as to the prehistory of the eastern coastal region doubtless has more to do with the state of research than a lack of settlement here. In this archaeologically imperfectly understood part of India, the finds from Sankarjang offer us a unique, but all too brief glimpse of prehistoric culture. The filling in of this emerging picture is a promising field for archaeologists in search of new horizons.

APPENDIX

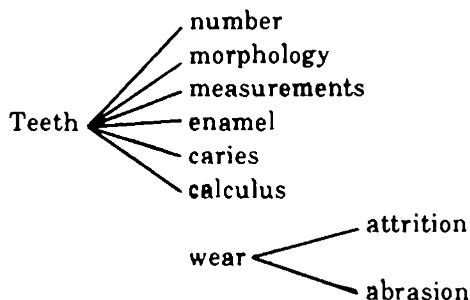
Karen Hojgaard

Dental Anthropological Examination of Teeth Collected from the Mounds Excavated near Sankarjang.

The material consists of 41 isolated teeth and tooth germs. Nearly all of the roots were fractured so that only the crowns were present, and even some of these were fragmented.

In order to count the individuals represented and assess their approximate age at the time of death, the occlusal and interstitial wear of the teeth, and

the stage of development of the unerupted teeth and tooth germs were decisive for the results. Moreover, the usual scheme for palaeo-odontological examinations of teeth was used :



Disintegration and fractures prevent a thorough description although all points observable for each individual found appear in the catalogue.

RESULTS

Despite the poor condition of the material, a pattern arises as to how many individuals the teeth and germs represent. The teeth recovered from the three mounds give evidence for at least 5 children and 4 adults.The approximate determination of the age at the time of death to judge from the dentitions is :

Homo 1 :	6	months
Homo 2 :	5	years
Homo 3 :	6	years
Homo 4 :	8	years
Homo 5 :	12	years
Homo 6 :	20	years
Homo 7 :	20	years
Homo 8 :	20-30	years
Homo 9 :	30-40	years

No conclusions concerning the average duration of life can be drawn from a sample of this limited size.

The morphology of the teeth indicates racial characteristics typical of Mongolian stock such as pronounced enamel extensions (P.O. Pedersen's type 6, one tooth from Sankarjang with an enamel nodule). and traces of the diagnostic shovel-shape. One first permanent molar, the only tooth from Homo 2, on the contrary, shows a non-Mongolian trait, a well-developed tuberculum Carabelli. So conclusions concerning racial affinities are tentative; more material is desirable.

The predominant cusp pattern is

$$\frac{4 - 4 - ?}{+ 4}$$

Y5 -   -Y5

+ 5

The measurement and subjective impression of the non-measureable teeth show that they are robustly formed, and are of large size. The dental dimensions are equivalent to the "megadont" dentitions from early Neolithic Mehrgarh (site : M R 3) (J.R. Lukacs), and to contemporary teeth from the Far East. Again, more material is necessary to enable study of tooth crown area etc. for the Sankarjang population in comparison to others from South Asia and neighbouring regions.

The enamel is fine except for hypoplasia on the three canines from Homo 4, and the canine from Homo 7. The six to seven horizontal grooves above each other on the facial surfaces are probably caused by seasonal change in the nutrition during the formation of the tooth crowns. As seen in contemporary dentitions from Bahrain and Umm an-Nar (U.A.E.) the defects began to develop when the child was about 2-3 years of age, the supposed post-weaning period (K. Hojgaard). Some of the teeth are stained green, presumably from contact with copper objects in the burials.

Caries is found in three of the four adult individuals. Homo 7 has two carious lesions, facially on the right lower second and third molars. Homo 8 has two lesions approximately in the left lower third molar and right lower first molar. Homo 9 has an attack approximally on a disintegrated molar. The percentages of caries cannot be stated owing to the fewness of the teeth from each individual. Doubtless, the Sankarjang inhabitants, to judge from the small sample available, consumed food rich in soft carbohydrates, perhaps e.g. rice, grain or peas.

Calculus has been preserved. Moderate sub-and supragingival amounts are seen on all four adults.

The wear is heavy, as with all prehistoric dentitions. However, dentine-islands were to appear than seen in other contemporary populations. The reason for this might be a greater robustness of the teeth and/or different nourishment. No small fractures on the border of wear combined with the incidence of carious lesions indicates a dental status characteristic from settlers engaged in agriculture and animal husbandry. Of course no firm conclusions can be drawn for the entire population at Sankarjang on the basis of the sample available. Moreover, further material is necessary to confirm the above-mentioned observations concerning the predominant Mongolian traits of the teeth.

CATALOGUE

HOMO 1

2 germs of deciduous teeth : 54 and 75.

The development of the germs according to Schour and Massler's scheme corresponds to about 6 months.

Morphology : 54 : 3 cusps. Deep sulcus. Bolk's grooves on the lingual surface.

75 : 5 cusps + c_6. Folding

Measurements : Not measureable, but both are large and robust teeth.

Enamel : Fine

HOMO 2

1 germ of a permanent tooth : 16

The development of the germ corresponds to about 5 years.

Morphology : 4 cusps + cusplet distally between the metacone and hypocone on the marginal ridge. Well-developed tub. Carabelli.

Measurements : m-d : 10.5 mm b-l : 12.4 mm

Enamel : Fine, without hypoplasia.

HOMO 3

4 teeth and germs : 16, 47, 85 and 36.

The development of the germ 47 corresponds to 6 years; 16 and 36 are newly erupted.

Morophology : 16 : 4 cusps. Deep sulci. 47 : +5. 85 : 5 cusps. 36 : Y5

Measurements : 16 : m-d : 10.9 mm b-l 12.3 mm
36 : m-d : 12.35 mm b-l : 10.45 mm

Enamel : hypoplasia. Faint extentions on 16 and 36.

Wear : 85 : Blurred occusal pattern, visible dentine-islands on the cusps and interstitial wear-facets. 16 and 36 : Nearly unworn.

HOMO 4

4 germs of permanent teeth : 23, 44, 43, and 33.

The development of the germs corresponds to about 8 years.

Morphology : 23, 43, and 33 : pointed cusp. Lingually the strong marginal ridges continue in the faintly developed tubercle, U-shaped, surrounding a rather flat area, because the middle ridges are only intimate : Shovel-shape. 44 : 2 cusps.

Measurements : 23: m-d: 8.95mm b-1: 8.70mm
44: m-d: 8.10mm b-l: 8.40mm
43: m-d: 7.95mm b-l: 8.10mm
33: m-d: 8.05mm b-l: 8.15mm

Enamel : Hypoplasia on 23, 43, and 33. Horizontally distinct grooves on the facial surfaces except for the most incisal part, but only the weak lines on the lingual surfaces. 6 to 7 lines on each tooth.

HOMO 5

5 teeth and a germ : 27, 28, 32, 36, and 37.

The development of the germ 38, and the slight wear of 37 correspond to an age of about 12 years.

Morphology : 27 : 4 cusps, the hypocone not reduced. 36 : Y5 + c7. 37 : + 4 + C6. Deep sulci.

Measurements : 27: m-d:10.10mm b-l:11.80mm
36: m-d:12.65mm b-l:10.80mm
37: m-d:11.35mm b-l:10.50mm

Enamel : Stained green, probably from adjacent copper objects in the grave. Extensions, both facially and lingually on the molars.

Wear : 27 : newly erupted, only the protocone has a wear facet. 36 : wear facets on all cusps except on the metaconid. 37 : wear facets on the protoconid and hypoconid only.

HOMO 6

7 permanent teeth : 17, 16, 48, 45, 44, 35, and 37.

Morphology : 48 : Y5 + C6.

Measurements : Robust. 48: m-d: 10.5mm b-l: 9.9mm

Enamel : Extensions facially (type 6) on 17, 48, 37 and on a fragment of 36. Enamel nodule on 17.

Calculus : Sub - and supragingival amounts are preserved.

Wear : The wisdom tooth 48 only has a slight wear facet facially on the protoconid and hypoconid, so it is rather newly erupted. Therefore the age must be approximately 20 years.

HOMO 7

4 permanent teeth : 12, 48, 47, and 43.

Morphology : 12 : Trace of the shovel - shape. 48:5 cusps +C6.

Measurements : Too worn and disintegrated. Robust.

Enamel : Slight hypoplasia (fine grooves) on the facial surfaces of 43. Extensions facially on 48 and 47 (type 6).

Caries : 48 facially and incipiently in 47 facially.

Calculus : Sub-and supragingival amounts are preserved.

Wear : The wisdom tooth 48 is only slightly worn, so it was rather newly erupted. Therefore the approximate age must be about 20 years. The wear of 12 has blurred the possible shovel-shape. The pattern of the dentine islands, however, on the incisal part of the tooth reveals the shovel-shape.

HOMO 8

11 permanent teeth : 18, 25, 47-42, 35, 37, and 38.

Morphology.: Too worn.

Measurements : Too worn. Robust.

Enamel : stained green (copper). Extensions visible on 47 and 38 facially.

Caries : 38 mesially and 46 incipient disto-lingually.

Calculus : Sub-and supragingival amounts are preserved.

Wear : Blurred relief, but no dentine-islands except on 42 which might be some sort of functional abrasion. The wisdom teeth are not much worn, so the age must be between 20-30 years. The sparse material contains no baselines for a more precise estimation of the age.

HOMO 9

3 permanent teeth : 18, 48, and 47, and some disintegrated molar fragments.

Morphology : Too worn. Robust.

Measurements : Too worn.

Enamel : Extensions facially (type 6) on 48 and 47 and lingually (type 5).

Caries : Approximally on one of the disintegrated molars.

Calculus : Sub-and supragingival amounts are preserved.

Wear : 47 and the wisdom teeth 18 and 48 are heavily worn. The disintegrated molars likewise show a heavy wear, so the age must have been 30-40 years.

1. TOOTH FROM AN ANIMAL

The enamel is gone; only the cementum is preserved, so it is impossible to specify the species with certainty. However, the animal is an herbivore. The root is too slim for an ox tooth, with the possible exception of a tooth from a very young calf. Thus, probably the tooth is from a goat or a sheep.

Illustration Captions

Fig. 1 : General sketch map of the area. After Operational Navigational Chart J-9 (1980).

Fig. 2 : Map showing the immediate vicinity of the findspot. After the map "Angul", series U502, sheet NF 45-13, ed. 1-AMS (1955).

Stone bars from Sankarjang, types I, Ia, and Ib.

Figs. 6 - 7 : Type II stone bars; 8 & 13 : type I & IV adzes/axes.

Figs. 9 - 12 : Types I, Ia, II, III adzes/axes; 14 & 15 Type III and V bangles; 16 : small implement.

Fig. 17 : Stone bar (No. 10) evidencing clear use-wear. - Photo Yule/Rath.

Fig. 18 : Mounds immediately south of the excavation. - Photo Yule/Rath.

Fig. 19 Excavation photo (1972) showing the position of finds in mound "B". - Photo State Archaeology Orissa.

Fig. 20 : Excavation photo (1972). the two upper levels of mound "B" are visible in profile. - Photo State Archaeology Orissa.

List of objects reproduced

Fig. 3 = 73.22.1; 4 = 73.22.6; 5 = 73.22.13. - State Mus. Orissa.

Fig. 6 = 73.22.4; 7 = 73.22.9; 8 = 73.22.64; 13 = 20. - Nos. 6-8 State Mus. Orissa; no. 13 State Arch. Orissa.

Fig. 9 = 73.22.65; 10 = 2; 11 = 1; 12 = 17; 14 = 1, 2, 10; 15 = 73.22.69.73; 16 = 73.22.79. - Nos. 10-12 & 14 State Arch. Orissa, Nos. 9, 15 & 16, State Mus. Orissa.

Notes and references

1. The authors should like to thank Dr. H.C. Das for permission to record and publish artefacts in the State Museum Orissa. Shri P.K. Ray also facilitated our work in the State Archaeology Orissa. Prof. Dr. Wolfgang Taute, Director of the Institute for Prehistory of the University of Cologne, and Dr. Juergen Freundlich generously made the radiocarbon determination possible, a first for Orissan prehistoric studies. Prof. Dr. Michel Raith, Director of the Institute for Mineralogy and Petrology of the University of Bonn advised us with respect to the identification of materials. We also benefitted from discussions with Dr. Armin Kirfel of the same institute in many ways. Martin Bemmann discussed the interpretation of the stone bars with us, and determined their musical tone by ear. R. Rupprath of the Institute for Communication Research and Phonetics of the University of Bonn carried out sonographic analyses of the bars. Gisela Hoehn of the Seminar for Prehistory and Early History in Bonn advised us on the graphic reproductions. The work was supported by a grant from the Deutsche Forschungsgemeinschaft, and was sponsored by Prof. Dr. Klaus Fischer and Prof. T.S. Maxwell of the Seminar for Oriental Art History, University of Bonn.

   "Eastern India", as the term is used here includes West Bengal, Orissa, Bihar, northern Andhra Pradesh, eastern Madhya Pradesh and the Northeastern states.

2. W. Fairservis, *The Roots of Ancient India* (New York 1971), 312-333.

3. A.H. Dani, *Prehistory and Protohistory of Eastern India*, (Calcutta 1960) (Henceforth, Dani, Preh. and Protoh.). Cf. also B. P. Sinha/B.S. Verma, *Sonpur Excavations 1956 and 1959-62* (Patna 1977) (henceforth, Sinha/Verma, *Sonpur Excav.*); B.B. Lal, Sisupalgarh, 1948 : An Early Historical Fort in Eastern India, *Anc. Ind.* 5, 1949, 62-105.

4. R.L. Singh, *India A Regional Geography* (Varanasi 1971) 757-758.

5. As used here, the terms "ground" and "polished" pertain solely to the appearance of the surfaces of a given artefact, and not to the actual process or tools of manufacture (see below). Needless to say, some kinds of stone take a polish, some do not. With regard to the nomenclature cf. Discussion in : B. Hayden (ed.), *Lithic Use-Wear Analysis* (London 1979) 189-194.

6. Cf. the Bodding collection in Oslo, the Foote collection in Madras, the study collection of Utkal University in Bhubaneswar, as well as the various state departments of archaeology in eastern India.

7. P. K. Ray, Recent Archaeological Excavations in Orissa, in : M.N. Das (ed.), *Sidelights on History and Culture in Orissa* (Cuttack 1977) 539-540 : "neolithic burials". *Idem*. Archaeological Treasure of Orissa, in : Subas Pani (ed.), *Our Cultural Heritage, Souvenir Published on Occasion of the Goldern Jubilee Celebrations of the Orissa State Museum 1984* (Bhubaneswar 1984) 9-14; esp. 12; *idem., Annual Archaeological Survey Report 1971-75* (Bhubaneswar 1984) 69; A. Joshi, Recent Archaeological Discoveries in Orissa, in; H.K. Mahatab et al. (eds.) *Glimpses of Orissan Art and Culture Golden Jubilee Volume of the Orissa Historical Research Jour.* (Bhubaneswar 1984) 229; R.N. Dash, Pre-and Protohistory of Orissa (in the preceeding publication) 293.

8. Von Heine-Geldern, Urheimat and frueste Wanderung der Austronesier, *Anthropos* 27, 1932, 543-619 (henceforth, von Heine-Geldern, *Urheimat*). *Ibid.*, Prehistoric Research in the Netherlands Indies, in Pieter Honig/Granz Verdoorn (eds.), *Science and Scientists in the Netherlands Indies.* Natuurwetenschappelijk Tijdschriftrvoo Nederlandsch Indie Vol. 102. 102 - Special Supplement (New York 1945) 139 (henceforth, von Heine-Geldern, Preh. Research).

9. Von Heine-Geldern, Preh. Research, 141. We should like to thank Dr. Elisabeth During Caspers for making this important, but out of the way publication available to us.

10. K. Jettmar, Robert von Heine-Geldern, *Paiduma* 15, 1969, 9. See also Carroll L. Riley et al. (eds.), *Man Across the Sea, Problems of Pre-Columbian Contacts* (London 1976) 445-458 for a recent summary of the relevant thought on prehistoric trans-pacific interconnections.

11. Von Heine-Geldern, *Preh. Research* 139.

12. R. Duff tries to remedy this situation, and supplies a new typological vocabulary : Stone Adzes of Southest Asia, in : H.H.E. Loofs-Wissowa (ed.), *The Diffusion of Material Culture*.....Asian and Pacific Archaeology Series 9 (Manoa 1980) 151-189 (henceforth. Duff, Adzes). Cf. P. Yule, *The Bronze Age Metalwork of India.* Praehistorische Bronzefunde XX, 8 (Munich 1985) 69-70, 72-79 (henceforth, Yule, *Metalwork*).

13. E.C. Worman, Jr., The Neolithic Problem in the Prehistory of India, *Jour. Wash. Acad. Science* 39, 1949, 181-201, esp. 181-182 (henceforth, Worman, Neol. Problem); R.E.M. Wheeler, Brahmagiri and Chandravalli 1947. Megalithic and Other Cultures in the Chitaldrug District, Mysore State, *Anc. Ind.* 4, 1947-48, 181-310.

14. Dani's typology is updated by F.R. Allchin, The Neolithic Stone Industry of the Santal Parganas, *Bull. Sch. Or. Afr. Stud.* 25, 1962, 306-330 (henceforth, Allchin, *Bodding Coll.*). For Assam see T.C. Sharma, The Neolithic Pattern of North Eastern India, in M. S. Nagaraja Rao (ed.), *Madhu, Recent Researches in Indian Archaeology and Art History* (Delhi 1981) 41-52.

15. For example, Krishnaswami, V.D., Progress in Prehistory, *Anc. Ind.* 9, 1953, 76-79.

16. Zheng Naiwu (Henan Working Team No. 1 of the Archaeology Section of the Academy of the Social Sciences of China), Excavation of the Neolithic Site at Peiligang, *Kaogu Xuebao* 1984 - 1, 23-52, esp. P. 31., Fig. 6, 1-19 (axes and sickels); P. 32 fig. 7. 1-9 (spades or hoes); P. 34 fig. 9.1-5 (grinding stones). These finds from Henen province derive from settlements and graves. Jeanette Werning, who is writing her dissertation at the University of Frankfurt on the early neolithic period in China, pointed this and other relevant articles out to us. Cf. also T. Hoellmann, *Neolithische Graber der Dawenkou-Kultur in Ostchina.* AVA-Materialien 2 (Munich 1983) 33-36, 119 fig. 51; Duff, *Adzes*, 157-160; P.R. Rogers/Valerie Ward, *Stone Adzes of Hong Kong.* Hong Kong Museum of History. Occasional Papers No. 1 (Hong Kong c. 1972).

17. Ibid. Zheng Naiwu, (P. 52) three 14 C assays between 5495 and 5195 BC (no further information); ibid. Hoellmann 46-51(half-life 5730 years):

Dadunzi (x)	ZK 90	4494 ± 200 BC
Wangyin (II,III)	ZK 461	4000 ± 125
Wangyin	ZK 464	3955 ± 115
Wangyin	ZK 463	3275 ± 130
Chengzi (I)	ZK 460	3550 ± 165
Donghaiyu (I)	ZK 470	2865 + 195
Donghaiyu	ZK 479	2690 ± 185
Sanlihe (I - III)	ZK 390-0	2405 ± 170
Sanlihe	ZK 362-0	2090 ± 115
Sanlihe	ZK 391-0	2040 ± 155
Sanlihe	ZK 361-0	1905 ± 120
Sanlihe	ZK 364-0	1810 ± 145

Cf. also An Zhimin, The Neolithic Archaeology of China : A Brief Survey of the Last Thirty Years, *Early China* 5, 1979-80, 38-39 for these assays Dr. S. Werner drew our attention to this article.

18 *Preh und Protoh* 105-226

19. Those favouring an eastern origin for oblong tools and for those rectangular in cross section include B K Thapar (above, note x, 91-112) and Worman, *Neol Problem* 186-187, 199. Cf. also C von Fuerer-Haimendorf, Notes on the Stone Age in India, *Man in India* 28, 1948, 207 and R E M. Wheeler, Alt-Indien und Pakistan (Cologne 1959) 76-78 for this same opinion. D Sen and U. Chaturvedi, *Man in India* 35, 1955, 305-315, and *ibid*. 38.3, 1958, 176-185 avoid this issue in dealing with the lithics of neighbouring Bihar Similarly, T C. Sharma awaits further archaeological data, without which the east-west problem cannot be discussed meaningfully.

20 Rev of Dani, *Preh and Protoh*., in : *Bull. School Or Afr Stud* 24, 1961, 597 : "The tool types, rectangular celts, square shouldered celts, etc. have all a very wide distribution in East and Southeast Asia, and there can be no doubt of their reaching India from that quarter."

21. Cf above note 7

22 Sankarjang is located in the Jarapada Police Station, and is reachable from Bhubaneswar by means of the National Highway 42 to Angul, and the State Highway 6, travelling to the NW. The last 11 km are motorable For the find area see Census of India 1971 Ser 16 Orissa, Part X. *District Census Handbook* (8) Dhenkanal (Cuttack c 1971) 264-265, maps oppos pp. 210 & 258.

23 Census of India, 1971 Series 16 Orissa Pt X. *District Census Handbook* Pt. A. Town and Village Directory (11) Keonjhar, (Cuttack 1972?) 20 for this classification.

24 *National Atlas of India* (Calcutta 1980) Pl 129.

25 The authors, as well as Durga Panda briefly inspected the site. We should like to thank Dr Amarendra Nath for discussing the site with us Somnath Biswal also proved a good source of information

26. Dr Juergen Freundlich of the radiocarbon laboratory of the University of Cologne confirmed the low organic content of the osteal remains, a contributing factor for their poor preservation.

27 Included in our catalogue are the stone bars and one-of-a-kind lithics, as well as the excavated finds. The following strays also were acquired by the State Museum from Shri Biswal and from the State Archaeology; Type Ia adzes/axes : nos. 73.22.15 - .58 (= 44 pieces of the same type). Not locatable were nos. 73.22.59, .61.63.68, .75 - .78. Individual find inventories for the three graves are not preserved. The numbers in the catalogue texts where indicated either the registry of the State Museum, or are our drawing numbers of objects in the State Archaeology. Where the catalogue entries are not designated as strays, the objects have been excavated.

28. This typological designation was coined and defined in P. Yule, *Metalwork*, 80-81.

29. Ibid. nos. 938-941, 945-950 and 954 from Haryana are of roughly the same size and shape, and now can be reclassified as type V bangles, a group not previously distinguished.

30. Presently the Singhbhum shear zone yields almost a third of India's copper. It also falls into the Sundargarh and Mayurbhanj districts of Orissa. Reports of copper ore deposits in the Koraput district also occur. For copper deposits in India as a whole see J.A. Dunn et al., No. 23 - Copper, in : *Bulletins of the Geol. Survey India* (Delhi 1965) 59-169; K.P. Raghu nandan et al., No. 47 - Exploration for copper, Lead, and Zinc Ores in India, in : ibid. (Calcutta 1981).

31. Martin Bemann first suggested this idea to us. He and Yule have prepared a more detailed study of the Sankarjang Lithophones for the periodical Archaeological Musicalis. Cf. Curt Sachs, *Die Musikinstrumente Indiens and Indonesiens* (Berlin 1923) 30-31; K. Krishna Murty, *Archaeology of Indian Musical Instruments* (Delhi

1985); P. Sambamoorthy, *A Dictionary of South Indian Music and Musicians* 3 (Madras 1971) 77. For a summary of the early musical instruments of other regions see *World Archaeology* 12.3, 1981, and Census of India, *Ethnomusicology - Tribal Music* (Delhi 1973). The Lithophon is only treated in depth by H. Simbriger in : Steinspiele und ihre Nachbildugen in Metall, *Anthropos* 32, 1937, 55-570.

32. We struck each of the bars (suspended and lying), and recorded the tone by means of a miniature tape recorder.

33. Southeast Asia J. Kunst. *Music in Java* (the Hague 1949) 426 fig. 71, 429 fig. 86, 441 fig. 123. Africa : A. Simon (ed.) Musik in Afrika (Berlin 1983).

34. Cheng Te-K'un, Archaeology in China v. 2 (Cambridge 1960) 106, pl. 40a, b.

35. Cf. G. Condominas/J. Boulbet, Decouvert d'un troisieme lithophone prehistorique en pays Mnog-maa' (proto-indochinois du Viet Nam central), Anthropologie 62, 5-6, 1958, 496-502; A. Schaeffner, Une importante decouverte archeologique : lelithophone de Ndut Lieng Krak (Viet Nam), *La revue de musicologie* 97-98, 1958, 1-19. The lithphone treated in the last article is on display in the Musee de l'Home. We are grateful to Mssr. Pribislav Pitoeff of the same museum for pointing out these articles, and for discussing our lithophone with us.

36. Mendelssohn Bartholdy, P./C. Mendelssohn Bartholdy (eds.). Briefe aus den Jahren 1833 bis 1847 von Felix Mendelssohn Bartholdy (Leipzig 1865) 121.

37. C. Sachs, *Handbuch der Musikinstrumenten-tenkunde* (Wiesbaden 1979) (reprint of the first edition, 1991) 20-23.

38. For example see the bibligraphy of K.S Ramchandran, *Neolithic Cultures of India* (Madras 1980). In all fairness, one of the few criteria available to him to list the potentially relevant studies was this category of artefacts. The same holds for the fine study of R. Duff, Neolithic Adzes with Differentiated Butt, in South China, South-East Asia and Polynesia, in : F.S. Drake (ed.) *Symposium on Historical, Archaeological and Linguistic Studies on Southern China, South-East Asia and the Hong Kong Region* (Hong Kong 1967) 1-14.

39. Ground stone tools in early historic contexts : Allchin, *Bodding Coll.* 328-329; B.P. Sinha/B.S. Verma, Sonpur Excav. 138, 142. Worman cites several instances of the occurence of ground stone artefacts in early historic and even modern village contexts (*Neol. problem*, 182, 196); von Heine-Geldern, Preh. Research, 142; H.R. Van Heekeren, *The Stone Age of Indonesia*. Verhandelingen van het koninklijk Instituute voor Taal -, Landen Volkenkunde 61 (den Haag 1972) 199-200. See also Pawel P. Gorecki, *Early Records of Stone Artefacts in the Papua New Guinea Highlights*. Oceania Monograph 23 (Syndney 1982).

40. Personal communication with A.K. Prasad 14. 10. 1985.

41. Mohenjo daro : Wheeler, R.E.M. Harappa 1946, *Anc. Ind.* 3, 1947, 125; J.M. Kenoyer, Chipped Stone Tools from Mohenjo Daro, in : B.B. Lal/S.P. Gupta (eds.), *Frontiers of the Indus Civilization, Sir Mortimer Wheeler Commemoration Volume* (Delhi 1984) 117-132. Bagor : V. N. Misra, Cultural Significance of Three Copper Arrowheads from Rajasthan India, *Jour, Near Eastern Stud.* 29, 1970, 221-222. Chandoli : S.B. Deo/Z.D. Ansari, Chalcolithic Chandoli (Pune 1965) 26-44. Daimabad : Yule, Metalwork, 11. Jorwe : H.D. Sankalia/S.B. Deo, *Report on the Excavation at Nasik and Jorwe* (Pune 1955) 34, 151-152, 160-166. Nevasa : Yule, *Metalwork*, 21. Oriup : Personal communication with A.K. Prasad 16. 10. 1986. Pandu Rajar Dhibi P.C. Das Gupta, *The Excavations at Pandu Rajar Dhibi*. Bull. Directorate of Arch., West Bengal, no. 2 (Calcutta 1964) unpaginated synoptic table "The Cultural sequence in the Ajay Valley" (henceforth, Das Gupta, Pandu Rajar Dhibi). Sonpur : Sinha/Verma,

Sonpur Excav. 133 Pls. 49-51 (periods IB. II, and III = Fine black and red ware with copper and microliths, Northern Black Polished Ware, Post-NBP ware of the Kushan complex.

42. Cf. the ground stone axes from Mahagara, to the south of Allahabad (?Allchin/Allchin, *Rise of Civ*. 119 fig. 5.11).

43. A 14C determination was made of an osteal sample from Sankarjang (KN-3648) yielding the date cal 10 AD ± 420. Owing to the tiny amount of organic material preserved in the bone. and available for measurement, however, this assay is not conclusive. A second and valid assay (KN - 3753) dated to cal 740 ± 80 BC.

44. Dani, *Preh. and Protoh*. 225; Allichin, *Bodding Coll*., 325.

45. Possible use-polish: only no 48 (type IV). Throughout we have referred to the term **adzes**, although their use as hoes cannot be excluded. Cf. Dani, *Preh. and Protoh*. 47; S. K. Roy, Aspects of Neolithic Agriculture and Shifting Cultivation, Garo Hills, Meghalaya, *Asian Perspectives* 24, 2, 1986, 203-217.

46. *National Atlas of India* (Caltutta 1980) pls. 66 & 201 (redsandy soils); G.C. Mohapatra, *The stone Age Cultures of Orissa* (Pune 1962) 4 with regard to the petrology of the area. Shri A. K. Misra of the Geological Survey of India, Bhubaneswar kindly made the mineralogical identifications for us.

47. Cf. Beatrice Blackwood, *The Technology of a Modern Stone Age People in New Guinea*. Occasional Papers on Technology 3 (Oxford 1980) 15-20 for the recent production of ground stone tools in New Guinea. Grinding Stones from prehistoric periods : L. Pfeiffer, Die Werkzeuge der Steinzeit-Menschen (Jena 1920) 141-143; Pieter Modderman, Der Schleifstein (Polissoir) von Slenaken, Prov. Limburg. NL, in : G. Weisgerber et al., *5000 Jahre Feuersteinbergbau* (Bochum 1980) 238-240; B.B. Misra/ B.G. Pandey, Excavation notice-Chopani Mando, Dist. Allhabad, *Ind. Arch. Rev*. 1978-79 (1981) 56.

48. Cf. the Bodding Collection and the S. C. Roy Collection, Ranchi, the latter which is presently under study by Yule and M. Brandtner. The reason for the different appearance of the Sankarjang lithics might simply lie in the amount of time and care invested related to the function, and need not be a function of chronology. Cf. F. Hojlund, Stridsoksekulturens Flintokser OgMejsler, *Kuml* 1973-74 (1974) 179-196 for this idea per analogy with regard to Skandanavian stone axes.

49. F. Hojlund, The Function of Prestige Weapons in the Reproduction of New Guinea Highlands Tribal Societies. *Oral History, Institute of Papua New Guinea Studies* 10,3, 1981, 26-51.

50. *Preh. and Protoh*. 86-104. This descriptive category has been revised by F. R. Allchin in his study of the Bodding Collection of stone artefacts from the Santal Parganas. Our stone adzes II and IV belong respectively to his type I second variety of the Indian axe-hammer, and his type I Indian axe (Bodding Coll. pl. 1.5 and 1.2); also Allchin, Rev. Dani, 597.

51. Anon., Find notice-Harichandanpur, *Ind. Arch. Rev. 1958-59* (1959) 36. Pl. 49A, B.Cf. also the largest group of stone "bar celts" yet assembled, i.e. the photos in the photographic albums of the Archaeological Survey of India : volume "Miscellaneous vol. 6, 1959", PP. 47-58.

52. Type Ia quadrangular adzes are generally similar to nos. 184 and 200 of the S.C. Roy Collection in Ranchi.

53. Cf. von Heine-Geldern, *Urheimat*, Pl. 2,48 from Jashpur (Chota Nagpur); B.B. Lal, Protohistoric Investigation, *Anc. Ind*. 9, 1953, 97-98, Pl. 36 from Ban Ashuria. Our square-butted type I adzes differ in their form from the large, polished, pointed-butt adzes reported from the Midnapur and Mayurbhanj districts : Cf. Anon., Find notice-Radiabindha, *Ind. Arch. Rev*. 1958-59 (1959) 38, pl. 49C; Anon., Acquisiton notice-Bagridihi, *Ind. Arch. Rev*. 1960-61 (1961) 70, pl. 80B; D.P. Agrawal, *Archaeology*, 108 fig. 63 ("Assam"). The

differences in the shape of the various examples may well be conditioned by an origin in different regions.

54. On some Stone Implements of the Barmese Type, Found in Pargana Dalbhum; District of Singhbhum, Chota-Nagpur Division, *Proc. As. Soc. Bengal* 1875, 118-120; Allchin/Allchin, *Rise of Civ.*, 121 fig. 5.13, 4 & 6 from Assam.

55. Allchin/Allchin, *Rise of Civ.*, 124 fig. 5.16. there is no morphological correspondence with the various ground stone axes from the neighbouring neolithic site Kuchai; B. K. Thapar, Excavation notice-Kuchai, *Ind. Arch. Rev.* 1961-61 (1964) 35-36.

56. Duff. *Axes*, 151.

57. H. Mansuy, Stations prehistorique de Keo-Phay, de Khac-Khiem...*Memories du Service Geologique de l'Indochine* 12,2 1925, 1920, pl. 7 = R. von Heine-Geldern, *Urheimat*, Pl. 14, 67.

58. Cf. Yule. *Metalwork*, 83 (bar celts, bar celt-ingots); Duff, Adzes 168 fig. 56 (simple rectangular adze with a secondary face bevel, type 2, var. D, from Malaya).

59. In the area of Talcher.

60. Four test trenches were made here (Dist. Mayurbhanj 21°59'41"N; 86°42'22'E) which are of little help in this matter. : No metallic objects occured here. Nor are the lithics similar in shape to those from Sankarjang. Thapar, *Neol. Problem*, 91-92; *idem.*, Excavation notice-Kuchai, *Ind. Arch. Rev.* 1961-62 (1964) 35-36, pl. 57B; *idem*, Pre-Historic and Protohistoric Remains, *Orissa Review, Monument Special*, January 1976, 1-14. N.C. Ghosh, On the Neolithic Pottery of Eastern India, *Jour. Or. Inst. Baroda* 19, 1969-70, 333-334. Ghosh compared the pottery from Kuchai with the neolithic pottery from Chirand (layer IA), Baidyapur and Khiching which is similar in its fabric. Unfortunately the trenches at Kuchai are too small as to allow a clear impression of the remains of this period.

61. N.C. Ghosh, ibid., 336. On the other hand, the most authoritatiye representation of the neolithic finds from Chirand gives little indication of this similarity (B.P. Sinha, Neolithic culture in the Gangetic Valley, in : H.H.E. Loofs-Wissowa, (ed.)., *The Diffusion of Material Culture*... (Manoa 1980) esp. 82-83. Baidyapur (21°46'22"N; 86°41'54"E) see B.B. Lal, *Anc. Ind.* 9, 1953, 97.

62. The sherds are presently in the State Archaeology Orissa, Bhubaneswar.

63. Cf. Das Gupta, *Pandu Rajar Dhibi*, Pl. 37 below right; anon., Excavation notice-Mahisadal, *Ind. Arch. Rev.* 1963-64 (1967) 60, Pl. 41A (period I). Vgl. Allchin/Allchin, *Rise of Civ.*, 261.

64. Cf. Das Gupta, *Pandu Rajar Dhibi*, Pl. 34 right, Dating : Allchin/Allchin, *Rise of Civ.*, 261, Yule has inspected this pottery in the Directorate of Archaeology West Bengal in Calcutta. Presumably this pottery is contemporary with the graves in Sankarjang.

Subrata Kumar Acharya

NEW LIGHT ON THE GENEALOGY AND CHRONOLOGY OF THE GAṄGAS OF ŚVETAKA

The Gangas of Śvetaka are known to us from fifteen sets of copper plate grants. Of these four plates belong to Jayavarman, another four to Indravarman, three to Sāmantavarman and one each to Anantavarman, Bhupendravarman, Pṛthvīvarman and Dānārṇava. At least two grants are dated in some unspecified era and a few more in the regnal years of the rulers. In view of the identical names of the issuers of more than one grants such as Jayavarman, Indravarman and Sāmantavarman, scholars so far delved into the problem have advanced many unwarranted speculations about their genealogy. Still more hypothetical is building of the chronology of rulers on the basis of the dates mentioned in unkown era(s). In this paper I propose to make a fresh investigation into the problem on the basis of both internal and circumstantial evidences.

The family name Gaṅga, the claim of overlordship of all Kaliṅga and the reference to the deity Gokarṇeśvara on Mt. Mahendra in the records of the Gaṅgas of Śvetaka make it evident enough that they belonged to a collateral branch of the main line of Eastern Gaṅgas ruling from Kaliṅganagara. The proud epithets assumed by the rulers also proved it beyond doubt that they constituted an independent line of rulers. From the findspots of their copper plate grants it is now believed that they were ruling over the northern parts of Kaliṅga, viz. the Ex-Zamindaries of Baḍakhemuṇḍi, Sānakhemuṇḍi and Chikiti in the south-eastern part of modern Ganjam district. A majority of the epigraphs are issued from the capital city of Śvetaka.[1] identified with modern Chikiti in Ganjam district.[2] On palaeographical considerations, Dr. R. C. Majumdar[3] arranged the kings of the Śvetaka Gangas in the following chronological order.

(I) About 7th and 8th centuries A.D.

1. M. Sāmantavarman of Pherava and Dhanantara grants
2. M. Indravarman of Gautami grant
3. M. Jayavarman of Baḍakhemuṇḍi and Ganjam grants

(II) 9th and 10th centuries A.D.

4. M. Indravarman of Vishmagiri grant
5. *Rāṇaka* Jayavarman of Indian Museum grant
6. MPP. Bhupendravarman of Baḍakhemuṇḍi grant
7. MPP. Anantavarman of Svalpavelura grant

(III) 11th and 12th centuries A.D.

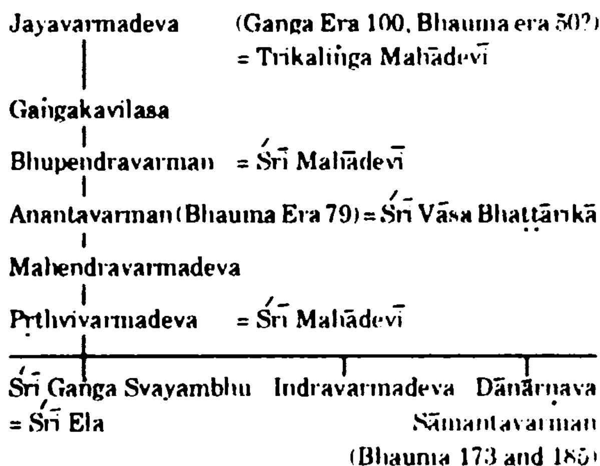
8. Mahindravarman
9. M. Pṛthvīvarman, son of No. 8 of Ganjam grant
10. MPP. Indravarman, son of No. 9 of Indian Museum and Sānakhemuṇḍi grants
11. PPM. *Rāṇaka* Dānārṇava of Baḍakhumeṇḍi grant.

S. C. De[4] rearranged the kings of the dynasty mainly on the basis of the writers and the engravers as mentioned in the inscriptions. On the basis of the palaeography of the grants he assigned their period from about the seventh to eleventh century A.D.

1. Sāmantavarman of Pherava and Dhanantara grants
2. Indravarman of Gautami grant
3. Anantavarman of Svalpavelura grant
4. Mahindravarman
5. Pṛthvīvarman of Ganjam grant
6. Indravarman of Indian Museum and Sanakhemundi grants.
7. Dānārṇava of Baḍakhemuṇḍi grant
8. Mahārāja Jayavarman of Baḍakhemuṇḍi grant
9. Indravarman of Vishmagiri grant
10. *Rāṇaka* Jayavarman of Ganjam and Indian Museum Plates
11. Bhupendravarman of Baḍakhemuṇḍi grant

While Dr. Majumdar has pointed out that the date 185 of Pherava grant [5] should be referred to the Ganga era, S.C. De presumes its reference to some unknown era. The former is also of the opinion that Mahārāja Jayavarman is identical with *Rāṇaka* Jayavarman, issuer of the Ganjam plates. On this issue, he differed from Dr. Majumdar and suggested that *Rāṇaka* Jayavarman is identical with the ruler of the same name who issued the Indian Museum plates of the year 100 [6]. On the basis of the writers of the inscriptions he further points out that Mahārāja Jayavarman and *Rāṇaka* Jayavarman succeeded to the Śvetaka throne after Dānārṇava. Both the scholars have taken the year 100 mentioned in the Indian Museum plates of *Rāṇaka* Jayavarman as belonging to the Bhauma era.

Still another opinion is held by Dr. S. N. Rajaguru [7] who has derived the genealogical table of the dynasty in the following manner :



By the time Dr. Rajaguru took up the subject two more inscriptions had been discovered and deciphered and edited by the scholar himself. In one of the inscriptions belonging to Samantavarman,[8] he was able to read the date as 173. According to him the years 173 and 185 are dated in Bhauma era, the initial year of which he fixed at A.D. 626. He, therefore, takes Jayavarman as the progenitor and Sāmantavarman as the last ruler of the dynasty.

Out of the fifteen sets of copper plate grants at least two are dated in some unspecified era. The Pherava grant of Sāmantavarman is dated in 185 while the Indian Museum grant is in 100. The readings of the dates of the two epigraphs are final and especially in case of the latter it is written both in words and figures. Besides, the editors of

the Kamanalinaksapur plates of Sāmantavarman,[9] the Ganjam plates of Jayavarman[10] and the Svalpavelura plates of Anantavarman[11] have deciphered the date portions of these grants as 173, 50 and 19 respectively. In the first instance, the date portion is highly obliterated and I fail to make anything out of it. But in no case it can be the year 173. My repeated endeavour rendered it impossible to agree with the learned editor. After 'di' the grant is left blank, but I wonder how he took it as 5. Here I invite the attention of serious researchers to the original facsimile of the inscription. On the second occasion, Pt. B. Mishra read it as '*samvat* 50 of an unspecified era'. Following Pt. Mishra Dr. Rajaguru [12] has gone a step further by taking it to be the Bhauma era. In the opinion of Dr. Majumdar [13] the symbol in quesion should be read as 20 while Dr. D.C. Sircar [14] read it as Ganga era 120. In this regard one of the most convincing remarks has been advanced by Dr. S.C. Behera [15] who examined the symbol in the light of Buhler's chart and proved it to be the figure 8. On the third occasion, Dr. B. Ch. Chhabra has rendered the reading of the date as *samvat* 19. Dr. Rajaguru[16] differs from him and points out that it should be *samvat* (Bhauma) 79. But the symbol ? which has been taken by Dr. Chhabra and Dr. Rajaguru as 10 and 70 respectively, actually stands for the final 't' and completes the word *samvat*. Since there is no difference of opinion regarding the second symbol which definitely stands for 9, I incline to put it in the regnal year of the ruler.

So far as the chronology of the Gaṅgas of Śvetaka is concerned, we have at least six definite dates on the strength of which the chronological positions of different rulers of the family can be ascertained.

(a) The date 185 mentioned in the Pherava grant should be referred to the Gaṅga era. For the alphabet of the grant closely resembles that of the Gaṅga records of Kalinga dated in the second century of that era. If V.V. Mirashi [17] is to be believed then Gaṅga era started in A.D. 498 and the date of the present grant may be fixed at A.D. 683.

(b) The Indian Museum plates of *Rāṇaka* Jayavarman is dated in *pravartamāna-vijayarājya-samvatsara* (PVRS) 100 which is expressed in words as well as number in decimal notation. Possibly the mention of PVRS induced Dr. Rajaguru to identify it as Gaṅga era. But the scholar has failed to take note of the decimal notation in which the date is written. In this connection it should be remembered that the dates in the records of the Gaṅgas of Kaliṅganagara were expressed in symbols upto the year 195, [18] thereafter they were written in decimal system. It is therefore, absurd to take it to be the Ganga era and with all probability it should be referred to the Bhauma era which started in A.D. 736. As such the date of the grant can be fixed at A.D. 836.

(c) In the Ganjam plates of Jayavarman the name of the donee is recorded as Bhaṭṭa Nanvaṭa-muttara of *Vatsagotra*, *Vājasaneya-Caraṇa*, *Kāṇva-śākhā* and *Pañchārṣi-pravara*. In the Svalpavelura plates of Anantavarman the donee is Bhaṭṭa Nanaṭa-śarma of the same *gotra*, *caraṇa*, *śākhā* and *pravara*. In view of the similarity of not only the name but also the *gotra*, etc., I incline to put the two as identical. But the same *Brāhmaṇa* is also mentioned twice in the Bhaumakara inscriptions. In the Dhauli cave inscription [19] of Śāntikara I dated in Bhauma era 93 or A.D. 829, Nannaṭa is referred to as

the father of Bhimata and grandfather of Loyomaka, who was an inhabitant of Virajānagara (Jajpur). His name is again found mentioned in the Ganeshagumphā inscription[20] of Śrī Śāntikara which records some donations made by physician Bhīmata, son of Nannata. At any rate, if the identity of the names Bhatta Nanvatta-muttara, Bhatta Nanata-śarma and Nannata is established, then the donee was originally an inhabitant of Svalpavalura, thereafter he or his son Bhīmata migrated to Virajanagara. Since the date of the Dhauli cave inscription is Bhauma era 93 or A.D. 829, the rulers of the two Gaṅga grants -- Jayavarman and Anantavarman -- might have flourished sometime before A.D. 829.

(d) Atleast three grants of the dynasty -- one issued by Pṛthvīvarman [21] and the other two by Indravarman [22] -- are engraved by the brazier Śrīsāmanta Svayambhū, son of Napa or Nṛpa. The latter is known to us from the Tekkali grant of Anantavarman [23] of the main line of the Gaṅgas. The grant is dated in Gaṅga era 358 or A.D. 856. If Napa or Nṛpa, the father of Śrīsāmanta Svayambhū, be identical with the engraver Napa of Tekkali grant, we have to assign the date of Pṛthvīvarman to about the same date or a little later than Anantavarman.

(e) The Ganjam plate of Dandimahādevī [24] issued in Bhauma samvat 180 or A.D. 916 refers to one *Rāṇaka* Dāṇālava (Dānārṇava) who acted as *dūtaka* (messenger) of the queen. Dānārṇava is also known to us from his Badakhemundi plates [25] where he states himself as a *Rāṇaka*. It is, therefore, not unreasonable that *Rāṇaka* Dāṇālava of the Ganjam plate of Dandimahādevī is the same *Rāṇaka* Dānārṇava of the Badakhemundi plates. With all probability he was ruling from Śvetaka as a feudatory under Dandimahādevī by A.D. 916.

(f) The Pandiapathar inscription[26] of Bhīmasena of Nala dynasty and the Orissa Museum plates[27] of Narendradhavala are dated in *samvat* 89 and 189 respectively. The editors of the plates have accepted the view that the *samvat* was referred to the Bhauma era than anything else. One of the most curious factors associated with these two sets of copper plate grants is that both the grants adopted the *prasasti* usually followed by the Gaṅgas of Śvetaka. Moreover, the find-spots and the place names referred to in the records are not far removed from the region where the Śvetaka Gaṅgas held their sway. There is, therefore, no inherent improbability that *Rāṇaka* Dānārṇanva who was the feudatory of Queen Dandimahādevī in A.D. 916 could hardly rule for a longer time because by *samvat* 189 or A.D. 925 the region came under the sway of the Nalodbhava dynasty.

Thus, the following observations have been made on the chronology of the family.

1. Pherava grant of Sāmantavarman was issued in Gaṅga era 185 or A.D. 683.

2. Jayavarman and Anantavarman, issuers of the Ganjam and Svalpaverlura grants respectively flourished sometime before Bhauma era 93 or A.D. 829.

3. Jayavarman of the Indian Museum plates dated in 100 refers to Bhauma era and, therefore, dated in A.D. 836.

4. Pṛthvīvarman of the Ganjam grant and Indravarman of the Indian Museum and Sānakhemuṇḍi plates ruled sometimes after Gaṅga era 358 or A.D. 856, the date of the Tekkali plates of Anantavarman.

5. *Rāṇaka* Dānārṇava, the issuer of the Baḍakhemuṇḍi grant was ruling in subordinate capacity under Daṇḍimahādevī by the year 180 or A.D. 916.

6. The dynasty came to an end by Bhauma era 189 or A.D. 925.

On palaeographical considerations I have observed at least four stages of development of the epigraphs of the dynasty. They are :

a) South Indian Variety :
   - i) Pherava grant of Sāmantavarman
   - ii) Dhanantara grant of Sāmantavarman
   - iii) Kamanalinaksapur grant of Sāmantavarman
   - iv) Kamanlinaksapur grant of Jayavarman

b) Some advancement in the letter-forms :
   - v) Gautami grant of Indravarman
   - vi) Badakhemundi grant of Jayavarman
   - vii) Ganjam grant of Jayavarman

c) Mixed characters of North and South :
   - viii) Svalpavelura grant of Anantavarman
   - ix) Vishmagiri grant of Indravarman
   - x) Indian Museum grant of Jayavarman
   - xi) Badakhemundi grant of Bhupendravarman

d) Northern characters :
   - xii) Ganjam grant of Pṛthvīvarman
   - xiii) Indian Museum grant of Indravarman
   - xiv) Sānakhemuṇḍi grant of Indravarman
   - xv) Baḍakhemuṇḍi grant of Dānārṇava

In stage (A) the records are mostly written in south Indian characters. In stage (B) the advancement in palaeography is chiefly noticed in the letter-forms of *cha*, *ja*, *bha*, *ma*, *ra*, *sa*, etc. and also in the notched based. In the next stage of development we have at least four grants exhibiting a mixed style of engraving which is usually found in the epigraphs of the main line of Gangas. In this style both the southern and northern characters are inextricably interwoven and at places even a single letter has more than one form (fig. I). The letters *i*, *ka*, *na*, *pa*, *ya*, *ra*, *la*, *sa* and *ha* in Viii; *ta*, *sa*, *sa in IX; ka*, *kha*, *ga*, *bha*, *ma*, *ya*, *la* and *ha* in X; and the letters *ka* and *la* in XI are written in more than one form. Moreover, while the characters in VIII, IX and X are pre-eminently south Indian, in XI there is a tendency to shift to north Indian style. The last feature is aptly manifest in the last stage which is mainly distinguished by the horizontal head-marks covering the entire breadth of the letters, the right uprights, the medial signs and by the letter-forms of *ka*, *kha*, *ga*, *cha*, *ta*, *na*, *tha*, *bha*, *ma*, *ya*, *ra*, *la*, *sa*, *sa*, *sa*, *ha*, *ksa*, etc. The sloping style of engraving in XV makes it altogether different from the rest of the grants and is definitely the last in the series.

In the foregoing discussion it has become obvious that the pherava grant of Sāmantavarman is the earliest in the series. But the quesion arises whether Sāmantavarman of the Pherva grant is the same Sāmantavarman of other two grants. Regarding this I have some reservations.

First of all, there is some discrepancy in the palaeography of Pherava grant and other two grants of the king.

Secondly, the enumeration of officials in Dhanantara and Kamanalinaksapur grants is definitely an advancement of the simple formula in the Pherava grant. The problem gets more complicated while we find the same simple formula in the Kamanalinaksapur grant of Jayavarman. In the Gautami grant of Indravarman a bit longer list of officials are given which unmistakably proves its later issue.

Grants	Officials
i. Pherava grant of Sāmantavarman *E.I.* XXVII, PP. 108-15 ff.	*yathā-grāma-nivāsi-janapadān*
ii. Kamanlinaksapur grant of Jayavarman. *O.H.R.J.*, VII, No. 2, PP. 83-86 ff.	-do-
iii. Dhanantara grant of Sāmantavarman *E.I.* XV, PP. 275-78 ff.	*yathākāla-vyavahāriṇaḥ-sakaraṇa-samanjapayati*
iv. Kamanalinaksapur grant of Sāmantavarman *O.H.R.J.*, VII, No. 2, PP. 86-90 ff.	
v. Gautami grant of Indravarman *E.I.* XXIV, PP. 180-83 ff.	*Yathākālādhyāsino-vyavahāriṇa-sakar-aṇam-sadaṇḍanāy-aka-pramukham-nivasina-janapadān*

Thirdly, in the Kamanalinkasapur grant of Sāmantavarman there is the mention of an interesting name *'Dharmarāja Kalinga Mārga'* the highway of Kalinga constructed by Dharmarāja. The names of two Dharmarājas may be suggested in this connection, one is Dharmarāja of the Sumaṇḍala plates [28] who was a feudatory of Pṛthvīvigraha in 250 Gupta year (A.D. 570), the other is the king of that name of the Śailodbhava dynasty. In view of the direct connection of Dharmarāja of Sumaṇḍala plates with Kalinga, S. C. De prefers to identify him with Dharmarāja of the present grant. [29] But Dr. S.C. Behera [30] is of the opinion that Dharmarāja II (c. A.D. 695 - 725) constructed this highway in order to mark the frontier line of Koṅgoda and Śvetaka. From the reference to the *'Dharmarāja Kaliṅga Mārga'* it appears that the ruler was a contemporary of Dharmarāja II.

Finally, the table showing the names of engravers of different epigraphs of the dynasty makes it evident that Akṣaśālin Śrī Padmacandra who caused the engraving of the Gautami grant was the same engraver Padmacandra and Bhogika Padmacandra mentioned in Dhanantara and Kamanalinksapur grants of Sāmantavarman respectively.

The above discussion proves it beyond doubt (a) that Sāmantavarman of Pherava grant was different from Sāmantavarman of other two grants; (b) that Indravarman of Gautami grant was an immediate successor of Sāmantavarman of Dhanantara and Kamanlinaksapur grants; (c) that Jayavarman of the Kamanlinaksapur grant cannot be placed either after Sāmantavarman of the two grants or after Indravarman. He certainly intervened between the two Sāmantavarmans.

Again a question arises as to how Jayavarman of Kamanalinaksapur grant is different from the King of the same name in other three grants. But the advanced palaeography, the enumeration of

longer lists of officials and the replacing of the imprecatory formula -- *iti kamaladalāmvu vindulolām* etc. -- differentiates not only Jayavarman of the other three grants but also later rulers from the earlier group of rulers such as Sāmantavarman I, Jayavarman, Sāmantavarman II and Indravarman. Besides *Mahārāja* Jayavarman of the Ganjam Plates was a contemporary of the second Bhauma King Unmaṭṭakesari while *Rāṇaka* Jayavarman, the issuer of Indian Museum Plates was probably ruling in Bhauma era 100 or A.D. 836. Again while the Ganjam plates were sealed by Pṛthvīmahādevī, the Indian Museum Plates were by Trikaliṅgamahādevī. There is, therefore, strong reasons to believe that there were at least three rulers bearing the same name.

1. *Mahārāja* Jayavarman (I) issuer of Kamanalinaksapur plates, *O.H.R.J.* VII, No. 2 PP. 83-86 ff.

2. *Mahārāja* Jayavarman (II), issuer of Badakhemundi and Ganjam plates.

   E.I., XXIII, PP. 361-63 ff; and *I.H.Q.*, XII PP. 489-93 ff..

3. *Rāṇaka* Jayavarman (III), issuer of Indian Museum plates. *E.I.*, XXIII, PP. 267-69.

Dr. Majumdar rightly points out the identity of the issuers of the Baḍakhemuṇḍi and Ganjam plates.[31] But De refutes the argument on the basis of the characters of the two grants and prefers to identity Jayavarman of Ganjam plates with *Rāṇaka* Jayavarman of Indian Museum Plates. De has erred because he accepted the suggestion of the editor of Ganjam plates that *Rāṇaka* Viṣamārṇava and *Mahārāja* Jayavarman are identical.[32] De has erred again when he believed that Sāmanta was the name of the writer.[33] In my opinion it is an official designation and not the name of a person.

In all probability, Jayavarman II ascended to the throne of Śvetaka immediately after Indravarman of Gautami plates. He was a contemporary of the Bhaumakara king Unmaṭṭakesari[34] and also granted land in Koṅgodamandala by seeking permission of the Bhauma king through *Rāṇaka* Viṣamārnava. From the phraseology of the grant it is difficult to equate *Mahārāja*. Jayavarman with *Rāṇaka* Viṣamārnava. If the identity of Bhaṭṭa Nanvata-muttera of the Ganjam plates of Jayavarman II with Bhatta Nanatasarma of Svalpavelura grant be accepted, then there is every reason to believe that Anantavarman succeeded to the throne after Jayavarman II. Similarly, *Rāṇaka* Jayavarman or Jayavarman III was in all probability the immediate predecessor of Bhupendravarman. Not only the grant of the latter makes a preference for the north Indian characters and, therefore, placed last in the mixed group of writing, but also both the plates were engraved by the same brezier Vimalacanḍra. Indravarman of Vishmagiri plates can, therefore, be placed after Anantavarman and before Jayavarman III.

We are relatively on a safer side while dealing with the genealogical problems of the later rulers of the family such as Pṛthvīvarman, Indravarman and Dānārṇava. Indravarman of Indian Museum plates[35] and Indravarman of Sānakhemuṇḍi plate[36] are one and the same king. There are some similarities in both the records.

(a) Indravarman is stated as a son of Pṛthvīvarmadeva

Sl. No.	Inscriptions	Donee	Writer/ Engraver	Date	Remarks
	1	2	3	4	5
1.	Pherava grant of Sāmantavarman			1 85 (G.E.) = A.D. 683	
2.	Kamanalinaksapur grant of Jayavarman				
3.	Dhanantara grant of Sāmantavarman		En. Padmachandra		
4.	Kamanalinaksapur grant of Sāmantavarman.		En. Bhogika Padmachandra		Dharmarāja Kaliṅga Mārga
5.	Gautami grant of Indravarman		En. Akṣaśālina Padmachandra	R.Y.4	
6.	Baḍakhemuṇḍi grant of Jayavarman				
7.	Ganjam grant of Jayavarman	Bhaṭṭa Nanvaṭa -muttara		R.Y.8	The donor obtained permission from Unmaṭṭakesari of Viraja, in order to grant a village in Koṅgoda which was under the Bhaumakars.
8.	Vishmagiri grant of Indravarman.				
9.	Svalpavelura grant of Bhaumakara	Bhaṭṭa Nanata-Śarma		R.Y.9	The son and the grandson of Nannata were contemporaries of Bhaumakara king Śāntikara I of Dhauli cave Inscription dated in B.E. 93 or A.D. 829.

Sl. No.	Inscriptions	Donee	Writer/ Engraver	Date	Remarks
	1	2	3	4	5
10.	Indian Museum grant of Jayavarman		Vimala chandra	100 B.E. = A.D. 836	
11.	Baḍakhemuṇḍi grant of Bhupendravarman		Vimala chandra		
12.	Ganjam grant of Pṛthvīvarman.		Wr. Śrī Śāmanta En. Śrī Śāmanta Svayambhu.		
13.	Indian Museum grant of Indravarman	Durgakhandi or other Brahmins	Wr. Śrī Śāmanta En. Śrī Śāmanta Svaymbhū, son of Napa.		Napa, the brazier is also known to us from the Tekkali grant of Anantavarman of the Gaṅgas of Kaliṅganagara dated in G.E. 358 or A.D. 856.
14.	Sānakhemuṇḍi grant of Indravarman	Durgakhaṇḍi son fo Bodhana	Wr. Sri Samanta En. Sri Samanta Svayambhu, son of Napa.		
15.	Baḍakhemuṇḍi grant of Dānārṇava	Durgakhandi, son of Bodhana			The Ganjam plate of Daṇḍi Mahādevī issued in B.E. 180 or A.D. 196 refers to one *Rāṇaka* Dānālava who can be identified with *Rāṇaka* Dānārṇava of Śvetaka Gaṅga family

(b) Both the grants are sealed by Gosvāminidevī, the queen of the ruler

(c) The grants are written and engraved by *Sandhivigrahin Śrisāmanta and Kamsāra-kulaputraka-śresthin Śrisāmanta* Svayambhū respectively.

(d) In both the grants the ruler assumed the titles. *Mahārājadhirāja, Parameśvara* and *Paramabhattāraka*.

(e) The scripts are in north Indian characters.

The Badakhemundi plates[17] of *Rāṇaka* Dānārṇava also states that he was a son of Pṛthvīvaramān. There is, therefore, reason to believe that he was a brother of Indravarman and both of them were not far removed in point of time. It is apparent that Bhattaputra Durgakhandin, son of Bhatta Bodhana of *Vasta gotra* and *Chandyoga Carana* the donee in the Sānakhemundi grant of Indravarman is the same Bhatta Durgakhandika, the donee of Dānārṇava's grant, as the names of the donee's father *gotra* and *carana* are the same as in the former. There is still more evidence to prove that Indravarman was elder than and preceeded Dānārṇava.

Pṛthvīvarman, the father of Indravarman and Dānārṇava is known to us from his Ganjam plates.[18] The writer and the engraver of the plates are *Samdhivigrahin Śrisāmanta* and *Kāmsyākāra Śrisāmanta* Svayambhū who also figured in the same capacity under Indravarman. According to B.C. Chhabra, "The presumption here is naturally that the persons employed by the father as writer and engraver continued to function as such in the son's regime after the father's death".[19] From this we may infer that Indravarman was elder than and preceded Dānārṇava. Had Dānārṇava been elder than Indravarman, the writer and the engraver of his grant would have been the same as we have found in the Ganjam plates of Pṛthvīvarman. Besides, while both Pṛthvīvarman and Indravarman assumed high titles like *Mahārājadhirāja, Paramesvara, Paramabhāttaraka*, etc. Dānārṇava was called in his grant as a *Rāṇaka* which is a definite pointer to the subordinate status of the king. If the identification of *Rāṇaka* Dānālava of Ganjam grant of Dandimahadevī with *Ranaka* Dānārṇava, the issuer of Badakhemundi plates is found to be correct then he is in more likely the last known ruler of the Gaṅgas of Śvetaka.

In this connection, it is interesting to note the following facts for deducing a complete genealogy of the dynasty.

(i) Bhupendravarman, the issuer of the Badakhemundi plates was a son of Gaṅgakavilasa. According to Dr. Rajaguru, Bhupendravarman was adopted by the king of Svetaka who died when the grant was issued.

(ii) Pṛthvīvarman mentioned himself in his charter as the son of Mahindrabhīma about whom we do not know anything.

(iii) Gaṅgasvayambhu was the eldest son of Indravarman III, the issuer of the Indian Museum plates. The land grant was made for the benefit of his wife Elā.

Until further discoveries, it is difficult to state whether these members of the dynasty actually ascended to the throne.

However, the above abservations led us to put the genealogy and chronology of the Gaṅgas of Śvetaka in the following manner.

1. M. Sāmantavarman I (c. A.D. 680-700)
2. M. Jayavarman I (c. A.D. 700-20)
3. M.Sāmantavarman II (c. A.D. 720-40)
4. M. Indravarman I (c. A.D. 740-60)
5. M. Jayavarman II (c. A.D. 760-80) = Pṛthvīmahādevī
6. M.P.P. Anantavarman (c. A.D. 780-800) = Vāsabhaṭṭārikā
7. M. Indravarman II (c. A.D. 800-20)
8. R. Jayavarman III (c. A.D. 820-40) = Trikaliṅgamahādevī Gaṅgakavilāsa
9. M. P. P. Bhupendravarman (c. A. D. 840-80) Mahindrabhima
10. M.P.P. Pṛthvīvarman (c. A.D. 860-80)
11. M.P.P. Indravarman (c. A.D. 880-900) = Gosvāminidevi Gaṅgasvayambhū = Elā
12. R. Dāṇārṇava (c. A.D. 900-20)

Notes and references

1. The name of the capital is written differently in different inscriptions. In some inscriptions it is written as Śvetaka and in others as Śchetaka. According to R.C. Majumdar Śchetaka was probably the original popular name which was Sanskritised into Śvetaka.

   (*E.I.*, XXVII, P. 112).
2. *J.O.R.* XI, P. 58.
3. *E.I.* XXVII, P. 110.
4. S.C. De, *Descriptive Catalogue of the Copper-plate Inscriptions of Orissa*, Bhubaneswar (1961), P. XLIX f.
5. *E.I.*, XXVII, PP. 108-15 ff.
6. *Ibid.*, XXIII, PP. 267-69 ff.
7. *Inscriptions of Orissa*, II, P. 346 f.,; *Oḍiśāra Itihāsa*, Cuttack (1985), P. 362.
8. O.H.R.J. VII, No. 2 PP. 86-90. ff.
9. *Ibid.*
10. *I.H.Q.* XII, PP. 489-93 ff.
11. *E.I.* XXIV, PP. 129-37 ff.
12. S.N. Rajaguru, *History of the Gaṅgas*, Part I, Bhubaneswar (1968), P. 161.
13. *The Age of Imperial Kanauj*, f. n. 30, P. 30.
14. *J.K.H.R.S.*, II, No. 1, 39.
15. S.C. Behera, *Rise and Fall of the Śailodbhavas*, Calcutta (1982), P. 97.
16. Rajaguru, *op. cit.*, P. 216.
17. *E.I.*, XXVII, P. 192.
18. Date of the Siddhantam copper plate grant of Devendravarman (E.I., XIII, PP. 212-16 ff.).
19. *E.I.* XIX PP. 263-64 f.
20. *Ibid.*, XIII, P. 167.
21. *Ibid.*, IV, PP. 198-201 ff.
22. (i) *Ibid.*, XXVI, PP. 165-71 ff.

    (ii) *Ibid.*, XXIII, PP. 78-80 ff.
23. *Ibid.*, XXVI, PP. 174-77 ff.
24. *Ibid.*, VI, PP. 133-40 ff.
25. *Ibid.*, XXIII, PP. 263-65 ff.
26. *O.H.R.J.* VI., Part II & III, PP. 97-102 ff.
27. *Ibid.*, XXII, No. 3 & 4, PP. 53-57 ff.
28. *Ibid.*, I, PP. 66 ff.; *E.I.*, XXVIII, PP. 79-85 ff.
29. De, *op.* cit., P.LII.

30. Behera, *op.cit.*, P. 89.

Very recently S.C. De has worked out the genealogy and chronology of the Sailodbhava dynasty where the scholar inclines to put Dharmarāja II between c A.D. 718 and 748. (*O.H.R.J.*, XXXI, No. 1, P. 105).

31. *E.I.*, XXVII, P.110.

32. De, *op. cit.*, P. LIV.

33. *Ibid.*, P. LI.

34 Dr. Biswarup Dash and Dr. U.K. Subuddhi have taken c A.D. 756-90 and c. A.D 756-86 respectively as the reigning period of Unmattakesari alias Sivakaradeva I

35. See n. 22 (i) above.

36 See n 22 (ii) above.

37 See n. 25 above

38. See n. 21 above

39 *E.I.*, XXV, P 240.

Ruth Michels-Gebler

THE NAṬARĀJA IMAGE IN ORISSA BETWEEN A.D. 600 And A.D. 1100

While the dancing aspect of Śiva as Naṭarāja was generally thought to be restricted to South India, the importance of an early Naṭarāja tradition in Orissa has often been overlooked.

In Indian mythology the character of Śiva's dance is ambivalent. It shows creative-cosmic as well as erotic-destructive aspects. Though it is a divine dance it is sometimes regarded as antisocial and opposed to the Vedas. In the myth of Dakṣa's sacrifice, Satī's father complains about the antisocial aspect of Śiva, expressed by his wild dance : *Śiva always wanders about dancing and singing and doing other despicable things, and this embarrasses me* [1]. On his expiatory wandering Bhikṣāṭana, the supreme beggar Śiva enters the Deodar Forest as a seductive dancer. The earliest source of this myth, the late epic book MBh XIII praises the erotic ecstatic dancer Śiva, who laughs, sings and dances with the wives of the ṛṣis : "*He sports with the daughters and wives of the sages, with erect hair, a great penis, naked, with an excited look. He laughs, sings, dances charmingly, speaks like a madman, speaks sweetly, laughs horribly*"[2]. This is the version of the myth that appears in most Sanskrit texts : In the form of a beautiful dancer Śiva seduces the women in the Pine Forest; the sages castrate him but become frightened by the consequences of this act; they relize the god and worship his *linga* ever after.[3] In the later Tamil texts of the Pine Forest story describing the famous Ānanda Tāṇḍava, the erotic-phallic component of Śiva's dance is missing as well as the castration episode. Siva is not castrated, rather, when the sages attack him, he dances in such a way that their attacks are useless. In this connection it is significant that the image of Naṭarāja as ithyphallic appears in Orissa but not in South India.

Bhikṣāṭanamūrti, the wandering mendicant and ecstatic dancer plays a central role in the ideology of the Kāpālikas, an extreme sect, which, together with the Pāśupata exerted a strong influence on the iconographic programme of early Orissan temples. While Bhikṣāṭanamūrti became the divine archetype of the Kāpālika ascetic, the Kāpālikas on the other side limited the god by ritual reenactment of his mythological exploits to obtain a mystical union with Śiva.[4] In the beginning of 7th century the Pallava King Mahendravarman I (cir. 600-630 A.D.) in his work *Mattavilāsa* praises the divine Kapālin (=Śiva), whose dance embraces the three worlds. So what Kulke [5] already supposes in respect to Cidāmbaram, i.e. that the dancing cult of Śiva in his earliest forms was cultivated in the circles of the Kāpālikas is of special value for Orissa and can be proved in the sculptural context of the earliest temples which show separate as well as combined scenes of Pāśupata - and Kāpālika rituals. The Kāpālika shrines at Simhanātha, Mukhalingam and the earlier Vaital temple connect Bhikṣāṭanamūrti with eroticism, dance and music (fig. 1). Side by side with Bhikṣāṭanamūrti we find expressive images of Naṭarāja (figs. 4-5) and dancing Ardhanāriśvara

(figs. 6-7) from the 7th century on, which seem to reflect the unorthodox interpreted religious practices of the Pāśupatas and Kāpālikas, who obviously both made use of Tantric rituals. The close association of Pāśupata and Kāpālika scenes in the iconographic programme indicates the strong syncretic nature of Savaism in Orissa.[6] In apotropaic/auspicious function Naṭarāja occupies a symbolically important place in the *vajra mastaka* above the entrance which leads to the sanctum. Furthermore the association of door (entrance) with *rites de passage* is closely connected to dance and music, in the same way as *devadāsī* and *purṇa kumbha* in Orissa represent auspicious symbols of the entrance.[7]

The Parasuramesvara temple in Bhubaneswar, named after a Pāśupata teacher (Parasaresvara) cir. 650 A.D., houses a 10-armed Naṭarāja emphasizing the *ugra* aspect of dance in the upper *caitya*-medallion of the *vajra mastaka* on the front facade of the *gaṇḍi*. In the lower *vajra mastaka* medallion at the base of the *rāhā* on the south we find the earliest cult icon of Bhikṣaṭanamūrti, in its details one of the most complete in Orissa.[8] Dancing Ardhanārīśvara beside Hara-Pārvatī and Hari-Hara on the south side of *jagamohan* symbolizes the lyrical character of the dance and the unity of Śiva and Sakti possibly in a Tantric meaning (figs. 8-10 graph1). The relevance of dance for the Pasupata sect[9] becomes particularly evident with a vigorous dance scene (figs. 11-12) which shows male dancers and musicians performing in a typiical saivitic *tandava*[10] style. Divided into two rows the performers are decorated on lattice windows which frame the entrance to the *jagamohan*. Similar in style and subject is another stone grille (fig. 13) dating to the same period, now affixed to the laterite wall of the much later Kapilesvara temple at Bhubaneswar. It depicts male musicians and dancers wearing masks, who exhibit partly demonical features, suggesting an ancient dance ritual.[11] To the same (probably) Pāśupata tradition belongs a 10-armed Naṭarāja, the remains of another stone grille, which originally may have served as a window for a *jagamohan*, and now is housed in a small shrine inside the Mukteśvara compound. The wide opened bulgy eyes and the broad outlined face appear mask-like and frightening[12] (fig. 14).

Not only the earliest surviving temples which were constructed under Śailodbhava rule, but in particular the temples of the Bhauma period in the 8th and 9th century demonstrate a special predilection for Naṭarāja and by that continue the early Pāsupāta tradition. The temples which are known to me outside of Bhubaneswar and which are often characterized by a more complex temple type (most of the *pancāyatana* class) possess without exception Naṭarāja in the sculptural context, up to five and more examples in two-14-armed execution. To these temples belong the Bhṛṅgeśvara Mahādeva temple at Bajrakot and the Kanakeśvara Śiva temple at Kualo in Dhenkanal district; the Māṇikeśvara Śiva temple at Śukleśvara, the Paścimeśvara temple on Amaṅgāi Island near Kanderpur, the small Durgā temple at Baidesvar and the nearby Siṁhanātha temple on an island in the Mahānadī in Cuttack district; the Śiva temples at Baṅkāḍa/Puñjiyāmā and Baḍgaon in Ganjam district; the Madhukeśvara temple at Mukhaliṅgam (now in the Srikakulam district of Andhra Pradesh); the Pātāleśvara and Mallikeśvara temples at Paikapaḍā as well as the Mallikeśvara temple at Padmapur in Koraput district.[13]

In the Bhauma period Saivism, Saktism and Tantrism seem to be inseparably connected with the Kāpālikas, who as one of the most extreme sects emerged from this amalgamation. The Kāpālikas were followers of Śiva and worshiped Cāmuṇḍā in her garland of skulls. As we know from literary evidence they sacrificed human beings to this goddess. At the end of the Bhauma period the dancing Cāmuṇḍā with a garland of skulls, with sunken belly and *kapāla*-skull bowl appears as the female counterpart of the dancing Śiva in his *Bhairava*-aspect (fig. 15).

A famous mythological episode is expressed by the combination of Naṭarāja above of beside Andhakāsura-vadha-mūrti on several temples like those at Siṁhanātha, Baidesvar, Mukhaliṅgam and Paikapadā (figs. 16-19). After Puranic narration Śiva as Naṭarāja dances the dance of death (the *Tāṇḍava*) when he impales Andhaka with his spear. In the *Kurma Purāṇa* it says : "*At this time, an evil-minded demon named Andhaka, tortured and blinded by lust, came to Mount Mandāra in order to carry off the goddess, daughter of the mountain.... Then the lord, the Rudra of the doomsday fire, the refuge of the good, took Andhaka and placed him on the tip of his trident and began to dance ......* "[14] In connection with the destruction of Andhaka, Śiva creates the *Saptamātṛkas* whose Tantric character is evident as early as the 5th century A.D. as indicated from the Gangdhar stone inscription, Jhalwar, Madhya Pradesh. [15] On this occasion the *Vamana Purāṇa* [16] accounts the birth of the eight Bhairavas which multiply to the number of 64 and correspond with the 64 *yogini*.

The Madhukeśvara temple at Mukhalingam, a Kāpālika shrine which on stylistic grounds can be placed to the first half of the 9th century houses Naṭarāja above Andhakāsura-vadha-mūrti in a huge *vajra-mastaka* design serving as a pediment for the south doorway of the *jagamohan*. (fig. 16). Śiva impaling Andhaka has six arms and holds the elephant skin (combining the Gajāsurasaṁhāra-mūrti motif with that of Andhakāsura) in his uppermost hands over his head. Two lower hands hold the trident and the two lowest carry rosary and *kapāla*. He is depicted *urdhavaliṅga* and wears a long garland of skulls. Above him, in the upper medallion of the *vajra mastaka*, dances a 14-armed Naṭarāja in a dynamic dance pose, with his right hip turned out extremely, exphasizing the *tribhaṅga*-bend of the body. Snake, half-skull and *trisula* underline the *ugra* aspect of dance. The 14-armed Naṭarāja forms a stylistical unity with the Naṭarājas of the Vaital, Śiśireśvara-and Mārkandeśvara temple group in Bhubaneswar (fig. 20-22). Naṭarāja images also appear in other *vajra mastaka* designs of the Madhukeśvara temple including a six-armed example in the lower medallion of the *vajra mastaka* under Bhikṣāṭanamūrti on the east face of the *gaṇḍi*, a two-armed image in the upper medallion of the east face of the *gaṇḍi* on the south west corner shrine, and a ten-armed example in the upper medallion on the west face of the *gaṇḍi* of the *rekha* at the southwest corner of the *jagamohan*. Moreover, the best example is a big sized 12-armed Naṭarāja in the western-most *vajra-muṇḍi* on the south wall of the *jagamohana* (graph 2).

With the Tantric/Saktistic nature of the temple correspond the *khākhara* shrines, *mithuna/maithuna* motifs, female symbolism and female *dvārapālas* as well as small sized Kāpālika scenes and ritual depictions of animal and human sacrifice. Likewise Sūrya of whom exist at least

five images on the temple complex, seems, as a principle of fertility, to play an important role in the Tantric ideology.[17] The most interesting example is the one on the lintel of the southeast corner shrine which depicts him up from the thighs riding in his chariot pulled by seven horses, and which is a near duplicate of the Sūrya from the Vaital temple, who there, together with a 12-armed Naṭarāja fills the *vajra mastaka* design on the east facade over the entrance (fig. 21). In this connection it may be significant, that the Kāpālikas like other heterodox sects worshiped Rudra-Bhairava as a solar god. Evidence for that gives the Nirmand Copper Plate Inscription (Kangara District, Himachal Pradesh), which can be dated to the early 7th century.[18]

A change in the conventional Nataraja depiction takes place with the Somavaṁśi in the middle of the 10th century, who import Central Indian elements of the Pāṇḍuvaṁśi architecture along the Mahānadi from West to East Orissa. Now Naṭarāja forms no longer part of the *vajra mastaka* motif, but rather, stands, carved in high relief and quasi isolated, above the *vajra mastaka* high on the *gandi* temple spire. The Mukteśvara temple in Bhubaneswar, which was built about 950 under Somavaṁśi rule represents Naṭarāja four times to the four cardinal points above each *vajra mastaka* of the *sikhara*. The Naṭarāja in the South possesses as Ardhanārīśvara half male and half female characteristics. (fig. 23).

The veneration of the femals principle, that was practised in Tantric religious forms during the Bhauma time, culminates under the Somavaṁśi kings. More and more erotical scenes and profane motifs are incorporated into the sculptural programme. To the same time the *devadāsī* custom, i.e. to dedicate dancing girls to the deity of a temple was generally accepted and institutionally supported, what is expressed by inscriptional evidence (on the Brahmeśvara temple) as also by numerous dance scenes which depict female dancers and musicians (for example on the Brahmeśvara - Mukteśvara - Rājārāni temples in Bhubaneswar and at Ratnagiri, compare figs. 24-26). In a high degree the temple becomes now the centre of socio-cultural activities, which refer to the deified *guru* and the king. While Naṭarāja in his lyrical appearance as well as dancing Ardhanārīśvara and Hara/Pārvatī with the *vīnā* lose importance, the Tantric aspect of dance expresses itself in terrifying images of Bhairava and Cāmuṇḍā as well as in *nṛtamūrtis* of the animal headed Gaṇapati who in imitation of Naṭarāja holds the snake over his head (figs. 27-28).

It is highly probable that with the Somavamsis religious ideas of the Kaula-Kāpālika sect which was wide spread in Central India penetrated into Orissa, and it is also probable that through this influence the two *yogini* piṭhas in Ranipur Jharial (Bolangir district) and Hirapur (Puri district) were built. While the temple at Hirapur shows a strong affinity to the stylistic tradition of Bhubaneswar, especially to the scultpures of the Muktesvara temple, the yoginis in Ranipur with their high conical hair dresses and with their archaic features of multiple or animal heads can rather be compared with *yogini* piṭhas like Bheraghat and Khajuraho in Madhya Pradesh (figs. 29-35).

Homeland of the early Somavaṁśis under Janamejaya I (cir. 882-922) was the Sambalpur/Bolangir area with the capital Suvarṇapura (Sonepur). Since the early 10th century the dynasty spreads out step by step downwards to Central

Orissa and Yayāti I (922-955) founded new capital, named Yayātinagara, on the bank of the Mahānadī river near Baudh. The year 931 is accepted as the date of the inauguration of the Somavaṁśī dynasty in Orissa, in obtaining possession of a portion of the flat plains of East Orissa (Dakṣiṇa Tosali). The amalgamation of Kosala with Koṅgoda and Utkala must have taken place one decade later with the foundation of a second capital (Abhinava Yayātinagara) also by Yayāti I, which is identified with modern Jajpur in Utkala. Accordingly it can be supposed that in this progress of state foundation and increasing power from West to East the *yoginī* temples were built as a symbol and to the protection of the royal rulers of the moon dynasty. So the temple in Ranipur must have been built during the first decades of the 10th century and the one at Hirapur near Bhubaneswar about 950 A.D.

In Ranipur-Jharial Śiva Naṭarāja dances in the centre of the *yoginī cakra* among 64 [19] likewise dancing goddesses whose lithe bodies assume a uniform, extremely deep *caukā* position of dance. Naṭarāja has four heads and eight arms. With one foot he dances on Nandī with the other one on Gaṇeśa. The two uppermost hands hold the snake horizontally over the head; while the right main hand crosses the body in *gajahasta*. In the remaining hands one can recognize *ḍamaru*, rosary and *kapāla*-half skull. He wears two different earrings, neck-ornaments, armrings and ghunghurus (small bells around the feet). A snake which twirls round his upper part of the body symbolizes the *Bhairava* nature of Naṭarāja, while the face with the closed eyes conveys a meditative, gentle smiling expression (fig. 36). The *Agnipurāṇa* [20] describes Śiva as *Mārtaṇḍa-Bhairava*, as a solar god amidst the *yoginī maṇḍala*, who with four faces, eight arms and twelve (4X3) eyes connects sivaitic characteristics and sun symbolism. The relation of *Mārtaṇḍa-Bhairava* and the *yoginī* encloses the territory of sacred space and sacred time in the centre of which Śiva dances, which he divides and penetrates with his divine essence. The four faces of Śiva are directed to the four cardinal points, the eight arms correspond with the eight directions and the twelve eyes with the twelve adityas or the twelve months.[21] The dance stresses the spatial-temporal component of the *yoginī cakra*. Śiva is the cosmic dancer who in rhythmic cycles creates, maintains and destructs the world. In this respect the *yoginī cakram* symbolizes the cycle of the two alternating cosmic phases of evolution and involution, the centre of which is Śiva, the outward pulsating force from spirit to matter *(prakṛtti)*, which in a calm backward flow from matter to spirit *(nivṛtti)* re-absorbs itself. In this eternal two-directional process according to Indian thinking also man is merely one in a chain of transformation, with the final aim of re-absorption into the Absolute. The *yoginī maṇḍala* sets up the connection between the outward forces of the cosmos and the inward of man, in terms of Tantric-esoteric philosophy, the harmonisation of macro-and microcosm, the unity of Śiva and Śakti.

List of Plates

fig. 1 Kāpālika ṛsis in combination with scenes of dance and music framing Gaṇeśa, the *pārsva devatā* on the south side, Someśvara temple Mukhalingam, early 10th cent.

fig. 2 Detail of fig. 1 : Sarasvati

fig. 3 Detail of fig. 1 : dancers and musicians

fig. 4 Dancing *Vīṇādhara* from Asanapat, Museum BBSR, 6-7th cent.

fig. 5 Dancing *Vīṇādhara*, Śatrughneśvara temple BBSR, 6-7th cent.

fig. 6 Dancing Ardhanārīśvara, Śatrughneśvara temple BBSR, 6-7th cent.

fig. 7 Dancing Ardhanārīśvara, Paraśurāmeśvara temple, BBSR, c. 650.

fig. 8 Naṭarāja, Paraśurāmeśvara temple, west side, BBSR, c. 650.

fig. 9 Annapurṇā placing alms in Śiva's begging bowl, Paraśurāmeśvara temple, south side.

fig. 10 Dancing Ardhanārīśvara beside Hara-Pārvatī and Hara-Hari, Paraśurāmeśvara temple, south side *jagamohana*.

fig. 11 Stone grille from Paraśurāmeśvara temple, male dancers and musicians decorating the entrance in the west.

fig. 12 Stone grille from Paraśurāmeśvara temple, male dancers and musicians decorating the entrance in the west.

fig. 13 Stone grille from Kapileśvara temple, male dancers and musicians, BBSR c. 650.

fig. 14 10-armed Naṭarāja, Mukteśvara compound, BBSR c. 6-7th cent.

fig. 15 Dancing Cāmuṇḍā, Paikapada, Pātāleśvara compound, late 9th cent.

fig. 16 Naṭarāja above Andhakāsura-vadha-mūrti, southern doorway, *jagamohana*, Madhukeśvara temple Mukhalingam, early 9th cent.

fig. 17 Naṭarāja, south side of *jagamohana*, Pātāleśvara compund Paikapada, late 9th cent.

fig. 18 Andhakāsura-vadha-mūrti, south side of *jagamohana*, Pātāleśvara compund Paikapada.

fig. 19 Naṭarāja above Andhakāsura-vadha-mūrti, north side of *deulā*, Durgā temple Baideswar, c. 8th cent.

fig. 20 Naṭarāja, Mārkaṇḍeśvara temple BBSR c. 750.

fig. 21 Naṭarāja, Vaital, BBSR, c. 750.

fig. 22 Naṭarāja, Śiśireśvara, BBSR c. 750.

fig. 23 Dancing Ardhanārīśvara from Mukteśvara temple, south side *deula*, BBSR about 950.

fig. 24 Devadāsi dance scene, north side *jagamohana*, Brahmeśvara temple, BBSR c. 1060.

fig. 25 Dancing girl, Mukteśvara temple, ceiling, BBSR, c. 950.

fig. 26 Dancing girl, Ratnagiri, c. 10th cent.

fig. 27 Dancing Bhairava, Brahmeśvara temple, *deula*, west side, c. 1060.

fig. 28 Dancing Gaṇapati, Mukteśvara temple, ceiling c. 950.

fig. 29-31 Yoginis from Hirapur, c. 950.

fig. 32 Ekapāda Bhairava Śiva, Hirapur, c. 950.

fig. 33-35 Yoginīs, Ranipur Jharial, ealry 10th cent.

fig. 36 Mārtanda Bhairava dancing, Ranipur, early 10th cent.

Notes and references

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9. In the commentaries on the *Saddarśanasamuccaya* and the *Gaṇakārika hāsya* (laughter), nṛtya (dance) and *gīta* (music) were to be performed at the time of meditation (V.P. Shah, in : M.W. Meister, ed. *Discourses on Siva*, Bombay, P. 95).

10. Tāṇḍava : after the *Nāṭyaśāstra* a most vigorous dance of Śiva.

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12. For the similarity to the Naṭarāja in cave III, Badami, see K.C. Panigrahi, *Archaeological Remains of Bhubaneswar*, Calcutta, 1961, PP. 137-138; T.E. Donaldson, *op. cit.*, P. 65.

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18. D.K. Biswas, "Sūrya and Śiva", in *The Indian Historical Quarterly*, Vol. 24, No. 2, June 1948, PP. 142-147.

19. 48 existent.

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Snigdha Tripathy

PAṆASI COPPER PLATE GRANT OF RĀYABHAÑJA OF THE MAYŪRA-VAṀŚA

This single copper plate grant was unearthed during 1977 from a village called Paṇasi, situated at a distance of about one and half kilometres from the well-known archaeological site of Khiching in the district of Mayurbhanj. The plate was discovered while digging a paddy field. It was found kept in an earthen jar which was broken to pieces while digging. An old well was also found near the findspot. The river called Kaṇṭākhairā is flowing near the village, at a distance of about one kilometre. On its bank, close to the said village of Paṇasi, there are several historical sites of which a place called Risimaṭh is of much historical significance. Various beads made of precious and semi-precious stones, ancient iron objects and potteries are very often found from these sites. A village called Ādipur the place of discovery of several copper plate grants of the Bhañja dynasty of Khijjiṅgakoṭṭa (c.10th century A.D.) is situated at a distance of about one kilometre north of Paṇasi.

The plate measures 10 x 7 cms. and is inscribed on both sides, the obverse bearing 18 lines and the reverse 22 lines of writing. A circular seal is soldered at the top of the plate. It is in the form of an expanded lotus, the petals of which enclose the seal. It measures 8.5 cms in diameter. The legend on the seal is not clearly incised. It resembles more or less the seals attached to the Keśari grant of Śatrubhañja[2] and a copper plate grant of Raṇabhañja[3] of the Bhañja family of Khijjiṅgakoṭṭa (the present Khiching in the Mayurbhanj District).

The letters on the plate are fairly deeply incised and the plate is in a good state of preservation.

The characters employed in the charter belong to the eastern variety of North Indian alphabet and may be palaeographically assigned to a date not much earlier than the last part of 11th century A.D. They resemble the script used in the above mentioned copper plate charters as well as other grants of the Bhañja dynasty issued from Khijjiṅgakoṭṭa.[1] The style of *b* has been indicated by the sign of *v*, which is also the usual feature of all the Orissan inscriptions of the period in question. Sometimes, no distinction is found between *v* and *c* as in the cases of *bhavatām* (line 18); *pravarddhamāna* (line 32); *cakrapāne* (line 26); *ā-candrārka* (line 29) etc. Again, *c* and *r* have the same form, *cf.*, *mayūra* (line 1), *rājā* (line 2), *rane* (line 3), *para-dattā* (line 38), *ā-candrārka* (line 29) etc. The same form of letters has also been used in the case of *d* and *u*; cf., *upādhyāya* (lines 26, 27); *saḍāsiṅga* (line 24); *jhāḍatāmvoliyā* (line 14) etc. In case of many other letters also, one or more forms have very often been employed; cf., *n* and *v* in *dān-āvadāna* (line 23). Sometimes, *p* is undistinguishable from *y*; cf. *pautrāya* (line 26); *upādhyāya* (line 27). Final *m* is similar to that of modern Bengali form of *anusvāra* (lines 18, 34). The mark of *avagraha* is found in line 31. The inscription contains the initial vowels *a* (lines 3, 25 and 28); *ā* (lines 2,22, 25 and 29); *i* (lines 20 and 30); *u* (lines 6,19, 22, 26

and 27); *e* (line 26) and *ai* (line 23). The numerical figure for 9 occurs in line 32 and those for 1 and 5 are found in line 33.

The language of the record is Sanskrit. The introductory part of the charter in lines 1-10 is written in three verses. Lines 10-33 containing the declaration of the grant are written in prose. Rest of the lines in the charter contain four of the usual imprecatory and benedictory verses. The orthography of the inscription seems to have been influenced by local pronounciation, cf., *joḍa* for Sanskritized *joṭa* or *joṭikā* (line 19); Jagarddhara for Jagaddha (line 27); *Kaṇṇa-sākhi* for *Kāṇva-śākhā* (Line 27). The rules of *sandhi* have often been neglected. (cf., lines 6, 30, 31, 38 etc.). A consonant is very often noticed reduplicated after *r* as in *Durjjaya* (line 2), *durvvāra* (line 4), *urvvīpati* (line 6). The guttural nasal takes the place of *anusvāra* as in *Saṅgrama* for *Saṁgrāma* (line 28). The palatal *ś* is used for the dental *s* in *śita* (line 7) and the dental *s* for the palatal *ś* in *sikhā* (line 9), *sima* (line 20) and *śākhi* (line 27) etc.

The date of the inscription is given in lines 32 and 33 as the regnal year 9 of the reigning king Rāyabhañja and the 15th day of the bright fortnight of the month of Śrāvana. The date, does not therefore, help us in determining the actual age of the record. It is to be noted that the numerals written in the record are in figures of the decimal system instead of ancient numerical symbols. The practice of writing numerals by symbols instead of figures of the decimal system in the epigraphic records, seems to have become obsolete in Orissa, particularly in its northern regions, before the middle of the 11th century A.D. Some of the epigraphic records issued by the Bhañja Kings from Khijjiṅgakoṭṭa are dated in an era now specified with the one introduced by the Bhauma-Kara dynasty of Orissa (c.736-c. A.D. 940). The numerals found in these records are symbols and not in figures of the decimal system. The Bamanghati plate of Raṇabhañja[5] and the Adipur plate of Narendrabhañja[6] of this Bhañja family are dated in the years 188 (100. 80. 8) and 193 (100. 90. 3) respectively using the numerical symbols, similar to those found in the epigraphic records of their overlords the Bhauma-Kara Kings of Orissa[7] Whereas in the southern parts of Orissa, the practice of writing numerals by using decimal figures was already in vogue by the first part of 10th century A.D. as is evident from some of the records of the Bhañjas of Vañjulvaka (comprising the region around Bhanjanagar in the Ganjam District and Nayagarh and Dasapalla in the Puri District).[8] In this context, D.C. Sircar has observed, "certain dates in the latest decades of the second century of the era in question (cf. Devānanda's plate edited about and the grants of the Bhauma-Kara Queen Daṇḍimahādevi) are written with numerical symbols instead of figures according to the decimal system and the use of such symbols does not appear to have survived considerably long after the end of the 10th century".[9] It is also noticed that the Somavaṁśins who occupied Kosala (Bolangir- Sambalpur tract in the Western part of Orissa) during the later part of the 9th century A.D., used decimal figures in their respective epigraphic records. It is interesting to note that the Bhañjas of Khiñjalimandala who were driven out of their original seat in Bolangir-Baud-Khandmals in western Orissa by the Somavaṁśins during the later part of 9th century A.D., to the Ganjam region, also used decimal figures in their epigraphic records. Thus the dates in the Bhauma era found in the two copper plate records of Śatrubhañja of Vañjulvaka, who was a feudatory

under the Bhauma-Karas, are written in the decimal figures. In fact, these two dates mentioned in his grants have considerably determined the beginning of the era introduced by the Bhauma-Karas during A.D. 736-37. On the other hand, the contemporary feudatory kings, such as the Tuṅgas, the Nandodbhavas and the Sulkis in the Dhenkanal region of the central part of Orissa, who acknowledged the suzerainty of the Bhauma-Karas and used their era are known to have adopted the numerical figures like their overlords.

The present inscription under discussion, begins with the auspicious symbol for *siddham* followed by the words *om* and *siddhiḥ*. This is followed by three verses introducing the reigning king and his predecessors. The first verse (lines 1-2) states that there was a king named Durjayabhañja in Khijjiṅgamaṇḍala, who was born in the family called Mayura-*vaṁśa* and nourished by the sage Vaśiṣṭha. A king named Raṇabhañja is mentioned in the second verse (lines 3-7) as to have flourished in this family. He has, however, been called the Bhañja *nṛpati* (king) who acquired fame by defeating many kings in the battles that were faught. The relationship between Durjjayabhañja and Raṇabhañja mentioned in these two verses, is, however, not clear. From Raṇabhañja was born Rāyabhañja, the reigning king as stated in the third verse (lines 7-10). He is also said to have defeated several enemy kings. This verse is followed by a long passage in prose from lines 10-33 dealing with the declaration of the grant of land made by the reigning king. The royal order relating to the grant is stated to have been issued from Khijjiṅgapāti. Rāyabhañja, the reigning king has been endowed with the religious title of *paramamāheśvara* (the devout worshipper of god Śiva) and such royal titles as *paramabhaṭṭarāka* and *mahārājādhirāja*. He is stated in lines 12-19, to have granted land in the village named Jhāḍatāmvoliyā, situated in the *viṣaya* (district) of Santodovā within Pūrvakhaṇḍa (eastern division) of Khijiṅga. The declaration is said to have been made in the presence of the queen, the feudal lords, the prince, the royal favourites, the landlords, the *bhogin* (the village head-man) and other officials as well as the inhabitants of the said division. Lines 19-20 specify the four boundaries of the gift village. To the east of the gift village is said to have been a stream *(joḍa)*, to its south is another stream called Parvatī-*joḍa* and to the north-west is the river named Koṭvāra. Lines 20-23 state that the village was donated along with land, water, fish and tortoise, the forest lands with mango and *mahuā* trees and with all kinds of regular and irregular dues, such as *āḍhaka-taṇḍula* (literally meaning rice weighing one *āḍhaka*); *hasti-dhānya* (literally meaning paddy for feeding the royal elephants); right to acquire treasure-troves as well as all the future taxes payable to the doner. Lines 23-31 mention the donee of the grant whose name is given as Vidyādhara, son of Jagaddhara and grandson of *Upādhyāya* Cakrapāni, who belonged to Aṅgirasa(?) *gotra* having tryārṣeya *pravara* and a student of Kāṇva *śākhā* and said to have migrated from a locality called Guggula-Sadasinga situated in Dasa *viṣaya* (district) of Airāvaṭṭa-*maṇḍala*. The declaration of the grant was made during a lunar eclipse for accruing religious merit of the prince Saṁgrāmabhañja. It was made permanent till the moon the sun and the earth would endure. Lines 32 and 33 deal with the date of the grant, mentioned in the regnal year 9 of the donor, Rāyabhañja, on the 15th day of the bright fortnight of the month of Śrāvaṇa. Lines 33-40 contain four of the usual benedictory and imprecatory verses.

The importance of the record lies in the fact that it reveals the name of a new line of kings claiming to have been born in the Mayūra-*vaṁśa* (mayura family) and who ruled the region around Khiching in the Mayurbhanj district of Orissa. So far it was known that the kingdom of Khijjiṅgakoṭṭa of Khijjiṅgamandala with its headquarters at Khijjiṅga or the modern Khiching was ruled by a line of Bhañja kings during about 10th and 11th centuries of the Christian era who called themselves as the *Ādi-Bhañjas*. Copper plate records of Koṭṭabhañja, Narendrabhañja, Raṇabhañja, Rāyabhañja, Mahanmadāhava-bhañja, Śatrubhañja and other kings of this family are known to have been discovered so far[10] in this region. These records reveal the extent of their kingdom which comprised the districts of Mayurbhanj and Keonjhar in Orissa and the contiguous parts of the present districts of Singbhum and Midnapore in Bihar and West Bengal respectively. All these Ādi-Bhañja kings claim in their respective records to have descended from a mythical personage called Vīrabhadra with the epithet *Gaṇadaṇḍa*, born of a pea-hen's egg and reared by the sage Vaśiṣṭha.

But the present grant in question deviates from the usual descriptive account of the origin of the mythical personage. Though, often they call themselves as Bhañja kings, the introductory part of the inscription describes Durjayabhañja, apparently the first king of the family as to have born in the Mayūra family and reared by the sage Vaśiṣṭha instead of mentioning the pea-hen's egg and the hermitage of Vaśiṣṭha. Further, the charter does not refer to the family as *Ādi-Bhañja vamsa*. Though the names of the kings mentioned in this charter are quite familiar in the family of Ādi-Bhañja, it is difficult at the present state to establish the exact relationship between the two lines.

In this context, a copper plate grant of one Durjayabhañja claiming to have born in the Mivara family and tracing his origin to the Bhañja dynasty[11], can be cited. The family name seems to have been inadvertantly written as Mivara in place of Mayura which can be presumed from the point of view of the numerous errors found in this inscription. From the palaeographical standpoint, the charter can be assigned to a period not much later than the charter under discussion. This copper plate grant of Durjayabhañja describes his family as to have been reared by the sage Vaśiṣṭha and refers to one Raṇabhañja as his father. It describes him as the ornament of the Bhanja family. With the exception of this and the familiar names borne by the kings, such as Durjayabhañja and Raṇabhañja, we do not find any other point of similarity to connect this family with that of Rāyabhañja of the charter under discussion, as well as with the Ādi-bhañjas. The drafting of their respective grants is quite different from each other though the scripts used in them have close resemblance.

The interesting point to be noted is that all these kings of the Mayura or Mivara family trace their genealogy to one Raṇabhañja, sometimes, endowed with the royal title of *Mahārājādhirāja*. Further, it is to be noted that majority of the known kings of the Bhanja family of Khijjiṅgakoṭṭa, whose copper plate records have been discovered, have referred to Raṇabhañja as their father. Sometimes, it is found difficult to establish the exact relationship amongst these rulers as well as Raṇabhañja. There are two copper plate grants of

one Raṇabhañja of Khijjiṅgakoṭṭa, the first being his own grant issued in the year 188 and the second issued in the name of his brother Narendrabhañja and endorsed at the end of the record by himself during the year 193. The years are, however, now generally regarded by the historians to be in the Bhauma era taken to have started during A.D. 736-37. The years thus mentioned in these two copper plate grants correspond to 924 and 929 of the Christian era, respectively and Raṇabhañja seems to have been a contemporary of the Bhauma-Kara princess Daṇḍimahādevī. These Bhañja rulers are believed to have owed allegiance to the Bhauma-Karas on the evidence of the use of the era introduced by them. Raṇabhañja of the above records seems to have enjoyed more power and prestige than other rulers of the dynasty. He was the only ruler of Khijjiṅgakoṭṭa to have borne the royal title of *mahārāja*. He was the son of Digbhañja. There was, however another king named Raṇabhañja, ruling from Khijjiṅgakoṭṭa. But he was the son of Rāyabhañja whose exact date cannot be ascertained from any source. At the present state, however, it is difficult to establish the exact relationship between these two Raṇabhañjas, issuing copper plate charters from Khijjingakotta. The scripts used in both of their grants can, however, be assigned to the same period. The chronology of the rulers of Khijjiṅgakoṭṭa has remained thus, as enigmatic as before.

In the context of Mayūra-vaṁśa, we may refer to a copper plate charter of about the same period, issued by one ranaka Udayavarāha, son of Tejovarāha and grandson of Uditavarāha, from his kingdom called Talaimaṇḍala.[12] The inscription states that this king was born in the Mayūravaṁśa and migrated from Citrakūṭa, the abode of the sage Vaśiṣṭha and became a resident of Talaimaṇḍala. The dynastic seal attached to this copper plate grant bears an emblem of the pea-cock along with a dagger and double lotus. H.P. Sastri, the editor of the grant believed on the basis of this emblem that this king belonged to the Bhañja dynasty of Mayurbhanj. Another king named Dharaṇīvarāha, believed to have belonged to this family, is found mentioned in an inscription of about the same period, engraved in the pedestal of an image of Avalokiteśvara, now preserved in the museum at Khiching in the Mayurbhanj district, which was the ancient capital of the Bhañja rulers of Khijjiṅgakoṭṭa. It seems, these rulers bearing names suffixed with *varāha* were petty chieftains under the Bhañjas of Khijjiṅgakoṭṭa who flourished during about the 12th century of the Christian era. The legend of the pea-cock and the sage Vaśiṣṭha in a vague form furnished in the above grant of Udayavarāha would apparently indicate that his family belonged to a remote branch of the Bhañjas of Khijjiṅgakoṭṭa. The principality of Talaimaṇḍala is believed to have been situated on the river Brāhmaṇī and bordering the districts of Sambalpur, Dhenkanal and Keonjhar. It seems these Varāha kings migrated from Mayurbhanj through Keonjhar comprising the Bhañja dominions and were installed in the principality of Talaimaṇḍala.

On the other hand, the present grant of Rāyabhañja as well as the above mentioned Adipur copper plate charter of Durjayabhañja bear the dynastic seal containing the Saivite emblem of bull, though the donors of their respective grants trace their birth to the Mayūra family. In the genealogical account furnished by the grant of Rāyabhañja, Raṇabhañja has been endowed with the epithet of Bhañja-nṛpati (Bhañja king). In

the light of the above discussion, it may be presumed that several co-lateral branches of the main Bhañja family of Khijjiṅgakoṭṭa were installed in small principalities included in the Bhañja kingdom of Mayurbhanj, such as Talaimaṇḍala and the territory occupied by the family of Durjayabhanja situated somewhere in the Keonjhar district. It is probable to think, in the light of above discussion that the family of Rāyabhañja succeeded to the throne of Khijjiṅgakoṭṭa after the decline of the *ādi*-Bhañja line and issued grants from the same headquarters.

The royal titles borne by the donor of the present grant would tend to indicate that he was an independent king, which is also coroborated by the fact that he has used his own regnal year in his charter instead of any era. The occasion of the grant was a lunar eclipse. It should be noted that the declaration of the grant was also made on the same day, i.e., the 15th day of the bright fortnight or the full-moon day of the month of Srāvaṇa when the said lunar eclipse occurred. The main objective of the grant was to acquire religious merit of the donor's son, apparently the crown prince named Saṁgrāmabhañja who has been described as *Kumāra*.

The charter has furnished two interesting expressions in line 22, while recording the grant. They have considerable significance with regard to the economic condition of the kingdom that Rāyabhañja ruled. The village is stated to have been granted together with its land and water, fishes and turtles, trees and forest, mango and *mahuā (madhuka)* trees, *āḍhaka-taṇḍula, hasti-dhānya*, treasure-troves, with its prefixed boundaries and all other future contributions to be made apparently by the donee to the ruling authority. Of these expressions, such as *āḍhaka-taṇḍula* and *hasti-dhānya* are to be noted. They appear to denote terms, forms for some irregular taxes to be paid by the donee to the king on specific occasions. The term *āḍhaka* is a measure of capacity used for measuring rice and grains and prevalent in different parts of Orissa since ancient times. Another measure called *adhavapa* was also in vogue which denoted a land measure. But, here in this case *tandula* (rice) has been suffixed with *āḍhaka*, indicating one *āḍhaka* measure of rice. It was often regarded as equal to 264 handfuls of rice or paddy and 1/4th of the measure called *droṇa*. In other parts of India also[15] this measure of capacity was prevalent. But the measure differed from place to place and not the same in all the ages and localities. One *āḍhaka* was also equal to 4 *prastha*, another ancient measure of capacity. Thus one *adhaka* of husked rice was often equal to 16 seers (about 21.3 kg.). But in southern parts of Orissa, particularly in the Ganjam region, it was often regarded as a lower unit of measuring rice,[16] which would be equal to a little less than one kilogramme.

As regards *hasti-dhānya*, it may be taken as a cess meant to be contributed by the donee in the form of payment of certain amount of paddy for feeding the royal elephants. So the grant was not a rent free one and clearly indicates that apart from the regular and fixed taxes to be paid by the donee, he was also supposed to contribute certain amount of occasional taxes in kind or the produces of the field.

As regards the geographical names occuring in the inscription, Khijjiṅgapati, the place of issue of the charter is obviously the present locality of Khiching in Mayurbhanj district which is well known for the antiquities and monuments it has yielded. The gift village Jhadatamvolia and the

district Santodava in which the gift village is stated to have been situated, cannot be satisfactorily identified at the present state, though the present village Paṇasi, the find spot of the charter may be tentatively taken as the same as the gift village, which is situated between the two tributaries called Kantakhaira and Tentua of the river Vaitarani. The localities of Adipur, the find spot of several Bhañja copper plate grants and Khiching are situated only at a distance of about 2 kilometres from this place. The river Kotvara of the inscription may be the present Kantakhaira flowing near the village Paṇasi.

17

Text

Metres : Verses 1, 4-7 *Anustubh*; v. 2 *Sardulavikridita; v.3. upajati.*

Obverse

1. Siddham[18] Om siddhih[19] Mayura-vamsa-sambhu(mbhu) to Vasisthamuni-palita-
2. h[19] asi (si) d-Durjjayabhanj = otra-raja Khijjingamandale[19] [1*]
3. A (A) ksat = atma-parajayan-api ran-eneka-dvisat-bhupa-
4. ti(ti) n durvvarams = caturanga-sainya-nivah-opetan ma-
5. h = auja (ya) [sa*] svinah[1]. Bhanja-nr[20]-Sri-Ranabhanja-namasaphalam vi-
6. bhrana [m*] = urvvipatis = tai (trai) loky = odaravartti-raja-bhupadabhra-
7. myat pratapas-tatah [2*] Tasmad = abhut si (si) ta-parakram-au-
8. ghah Sri-Rayabhanjah subhat = aika-sima[1] jvalat-prata-
9. p-agni-si (si) khasu satrun[21] nr-medha-yajnesv=iva yo ja (ju)-
10. hava [3*] Svasti Sri-Khijjingapatitah[1] Paramama-
11. hesvara-paramabhattaraka-maharaja-dhiraja-Sri-
12. mad = Rayabhanjadeva [h*] padah [22] kusali (li) nah[22] khi-
13. jinga-prativa(ba)ddha Pu(Pu)[r*] vvakhanda-Santodava-visayiya
14. Jhadatamvoliya-grame [22] rajni [22] ranaka [22] raja-
15. putra [22] raja-vallabha [22] mahasamanta [22] samanta[22] kammi (rmmi)
16. bhogi-pramukha-nivasinah [22] samasta-janapada-
17. n yathayogam manayanti (ti) [22] vodhayanti (ti)[22] sama-
18. jnapayanti (ti) [22] viditam-astu bhavatam gram=oyam (yam) [22]

Reverse

19. Kostad = akrsya [22] purvve joda [22] daksine Parvvati-joda [22] uttara (ra)-pasci-
20. me Kotvara-nadi [22] itve [23] catuh-si (si) m-avacchinnah [22] sa-jala-
21. sthalah [22] sa-matsa (tsya)-kacchapah [22] sa-vitap-aranyah [22] s-amra-madhukah [22]
22. adhaka-tandula [22] hasti-dhanya [22] nidhi upnidhi [22] bhavisya-

23. tyāvad-dān-āvadāna-sahitaḥ||[22] Airāvaṭṭa-maṇḍala-sam-

24. |ba*| ddnā (ddha)-Daśa-viṣaya-prativa (ba) ddha Guggula-Sadāsiṅga-grāma-

25. vinigrggata (tāya) Añcalasa-gotrasya [25] ātrāṣaya - pravara-

26. sya [26] Upādhyāya-Cakrapāṇeḥ pautrāya |[22] evaṁ Ja-

27. garddha (ddha) ra-sutāya Kaṇṇa-sākhine [27] Upādhyāya Śrī-Vidyā-

28. dhara-nāmadhiyāya Soma-grahaṇe putra-kuma (mā) ra-Śrī-Saṅgrā (mgrā)-

29. mabhañjasya puṇya-yaś-obhivṛddaye ā-candr (ndr)-ārka- kṣiti-

30. sama-bha (kā)laṁ Gaṅgā-Pravāha iva hast-odaka-dāna-puraḥ-

31. śaraṁ [28] tāmra-śāsanī kṛtya pradatto = smābhiḥ|| Śrīmad-Rā-

32. yabhañjadevasya pravarddhamāna-vijaya-rājye samvat 9

33. śrāvaṇa śudi 15|11*|Va (Ba) hubhir-vasudhā dattā| rājabhiḥ Sagar-ā-

34. dibiḥ tasya yasya yadā bhūmis = tasya tadā phalam II |4*|

35. bhūmiim yaḥ pratigṛhṇāti yaś-ca bhūmiṁ pramra (ya) cchati I ubhau

36. tau pa (pu) ṇya-karmmāṇau niyataṁ (tau) svargga-gāminau II |5*| Mā bhū-

37. d = aphala śaṅkā vaḥ para-datt = eti pārthivāḥ I sva- dattāt pā (pha)-

38. lam-ānantyam para-datta anupalane[29] II |6*| Gam-ekam svanna (rṇna)-

39. m=ekan=ca bhumer=apyarddham=angulam II (I) haran-narakam-apnoti

40. yavad-ahuta-samplavaḥ (vam) II |7*|

Notes and references

1. S. Tripathy, (ed). *Inscriptions of Orissa*, VI, 14, 20, 46 ff.
2. *Ibid*, 25-29; *IHQ*, XIII, 429ff; *EI*, XXV, 161-164.
3. *EI*, XXXVII, 233-38ff.
4. Cf. *EI*, XXV, 147-64ff. and Plate; *EI*, XXX, 220-225 and Plate.
5. *JASB*, (1871), XL, 161-167 and Plate.
6. *EI*, XXV, 147-157 and Plate.
7. Cf. the copper Plate grants of Daṇḍimahādevī in *EI*, XXIX, 79 ff. and plate; *JBORS*, VI, 137ff and plate; V., 571ff and plate.
8. Cf. the copper plate grants of Satrubhañja dated in *samvat* 198, in *EI*, XXIX, 189ff and plate; *OHRJ*, IV, 67ff and plate.
9. *EI*, XXIX, 190.
10. S. Tripathy, *Op. cit.*, VI, 1ff; for the copper plate grant of Kottabhañja, see, *OHRJ*, XXXI (3 & 4).
11. *EI*, XXV, 172ff.
12. *JBROS*, VI, 240ff.
13. *EI*, XXV, 172ff.
14. *JBROS*, VI 241ff.

15. D.C. Sircar, *Indian Epigraphical Glossary*, 5-6.

16. B. Misra, *Orissa Under the Bhauma Kings*, (Calcutta, 1932), 92.

17. From the original.

18. Expressed by a symbol.

19. *Visaraga* has been inserted in line 2 due to want of space in line 1.

20. This letter is redundant for the sake of the metre.

21. *Sandhi* has not been observed here.

22. Punctuation is superfluous.

23. Read *itv=evam*.

24. Read *nidhy-upanidhi*; the punctuation is superfluous.

25. Read *gotrāya*; the name of the *gotra* seems to have been intended for Aṅgirasa having three *pravaras*, viz., Aṅgirasa, Bārhaspatya and Vaśiṣṭha.

26. The intended reading is *tryārṣeya-pravarāya*

27. The intended reading is *Kāṇva-śākh-ādhyāyine*.

28. Read *puraḥsareṇa*.

29. Read *para-datt-ānupālane*.

Dinanath Pathy

MURAL PAINTINGS AT KANCHILI AND SARIAPALLI

We had earlier drawn the attention of scholars to a number of temples and mathas containing mural paintings in our publication - *Mural Paintings in Orissa* (1980, Lalit Kala Akademi, Bhubaneswar). These were Sitavinji, Kosalesvara in the district of Keonjhar, Jagannatha temple complex, Badaodia matha, Uttara parsva matha in the town of Puri, Hatakesvara temple, Baghamari in the district of Khurda, Virancinarayana temple, Jagannatha temple, both in Buguda town, Jagannatha temple, Dharakote, Caitanya matha, Chikitigada, Radhakanta temple, Digapahandi in the district of Ganjam and Radhakanta matha in the district of Gajapati, Sri Kalika temple, Jayapur in the district of Koraput, Srikurman temple, Srikakulam, Radhakrishna temple (Radhagovinda Swamy temple) in Meliaputti in Andhra Pradesh.

In our subsequent publication with Eberhard Fischer, (1980, Museum Rietberg, Zurich) and in the *Traditional Paintings of Orissa* (1991, Working Artists Association of Orissa), we had added a few more temples to the above list. These were Vrindavana candra temple, Siva temple and palace shrine in Dharakote town, Jayantigada and Laksminarayana temple in the district of Ganjam.

From the study of wall paintings in these above monuments, temples and mathas, we have come to the conclusion that Orissa murals portray two significant styles, one the Indian classical and the other provincial. These two styles are executed centuries apart and we have no existing materials to weave a continuum Sitavinji is the lone example of a pan Indian style whereas the rest of the murals are clearly within the provincial ambit. The seed of the later provincial style could already be even seen in the few technical specialities like ground-making, delineation of line of Sitavinji mural to further a link. Puri with its hundreds of temples and mathas would have provided good samples of murals for the transition period between Sitavinji and Jayantigada or more visibly Virancinarayana. But for the wrong handling of paintings inside the Jagannatha temple and other subsidiary shrines in the complex and in the Puri town, here we very much refer to the often discussed Kanci Vijaya and Buddha Vijaya paintings, the valuable evidences have been lost. Except the emotional content, the Buddha Vijaya painting in the *Jagamohana* of the Laksmi temple does not substantiate for a 9th/10th century mural.

When we come to Jayantigada or Virancinarayana, we are at the begining of 19th century. Stylistically with Virancinarayana emerges the provincial idioms having pronouncement of linear characters and a bright palette. The geographical extent of this style is not within the territories of present day Orissa, but spreads upto Srikurmam in the Srikakulam district of Andhra Pradesh. In fact the Srikakulam district is potentially rich with temples and mathas having Orissan mural paintings.

With this article, we are adding three more temples, two from Srikakulam district in Andhra and one from Gajapati district in Orissa which amply substantiate and enhance our understanding of Orissan provincial style. The two Andhra temples are Kanchili matha or Jagannatha matha in Matham Kanchili and Narayana Swamy matha in Sariapalli. These two mathas are in close proximity to each other. The other temple is in the town of Paralakhemundi also not far from these two towns.

The Jagannatha temple at Kanchili and the Narayana Swamy matha in Sariapalli contain paintings in the *jagamohana* on lime plastered walls. The paintings are based on the *Ramayana* theme and belong to the begining of the present century. From the consideration of compositions, motifs, colour schemes and the style, these paintings mark an extension of Virancinarayana, Dharakote pictorial traditions. But the Kanchili paintings are extraordinary for the novel compostional ideas which have not been traced so far in any of the temple murals of earlier or later periods in Orissa. Perhaps, these compostional arrangements make them unique so far the Orissan pictorial traditions are concerned.

The Jagannatha temple at Kanchili is a two chambered structure with an intermediatary narrow room called *arya*. The inner chamber is known as *ratnasimhasana vakhara*. The temple has an open *mandapa* in the front. The Garuda pillar and a pedestal for *basil* tree are placed fronting the entrance to the *jagamohana*. Adjacent to this *mandapa* is another covered structure with beautiful wood carvings in the ceiling. This is used as the bathing altar for the deities in the month of May/June preceeding the car festival.

The temple is only a small part of a huge complex which houses apartments for the *mahanta*, shelters for the retainers and the temple servants. There are prayer halls *(bhajana kothi)*, the hereditary seat of the *mahanta (gadi)*, store rooms *(bhandara ghara)* and a double storied covered *mandapa (medha)* for the accomodation of the visiting mendicants.

There is an inscription on the south facade of the *jagamohana* of the Jagannatha temple. The inscription scribed in Telugu language and Telugu script reads "1718.21 *devalayam Sri Sri Mahanta Janaki Dasu Ramakrsna Dasu Babaji garla warla purti kavadinadi*. Ramakrsna Dasa completed the construction of the Jagannatha temple in A.D. 1718. There is no mention of the paintings or the painter in this inscription. It is unlikely that the paintings have been done soon after the completion of the temple in early 18th century.

Interestingly enough we come across another Telugu inscription on the *medha* within the complex which reads "*Sri Sri Bhagaban Dasa Babaji 1908-5-23 tedina katinaina medha* alongside this, is an Oriya inscription which furnishes additional information about the artisan *(bindhani)* Gopinatha Maharana of Athagada Mathura who was responsible for the construction of the double storied structure *(medha)* inside the Kanchili matha complex.

Mahanta Bhagaban Dasa as informed by the present Mahanta is the builder of the temple complex. This corroborates the contents of the inscription. As the local information goes he is also responsible for installing the images of Jagannatha in the temple which earlier had only the idols of Radha-Krsna. It could be ascertained and the style of the murals confirm that the *jagamohana* of this temple was got painted by him

in the begining of this century around 1908. Apana Mahapatra, the citrakara of Chikitigada who informed us of this templere calls that his father had painted the murals inside the Jagannatha temple. The present mahanta of Kanchili matha, Janaki Rama Dasa aged around thirty remembers four generations of mahantas such as Harihara Dasa, Govinda Dasa, Bhagabana Dasa and Ramakrsna Dasa. Accordingly to him Ramakrsna Dasa laid the foundation of this Jagannatha temple which was completed by his disciple and successor Bhagabana Dasa who installed the Jagannatha image. Bhagabana Dasa's importance is also ascertained from the fact that he initiated Ramakrishna Chotray, the Raja of Jalantara who endowed the Village of Banamali to the temple. Bhagabana Dasa had a long reign of thirty five years as the *mahanta* who subsequently enlarged the landed property of the temple by acquiring land grants from the rajas of Tarala and Manjusa. Presently the matha has about eighteen villages which supply yields for the maintenance. These facts undoubtedly enhance the image of BhagabanaDasa as a prominent figure responsible for a number of benevolent measures he undertook for the improvement of the complex, of which the murals are our concern.

The paintings are done in horizontal bands designed alongside the masonary structures, niches, windows, doors, relief registeres on the four walls of the *jagamohana* (see schematic maps III, IV, V, VI). The story of the *Ramayana*, starting with the early childhood of Rama till the war in Lanka has been narrated. Considering the importance of certain narrative, the citrakaras have provided them larger spaces in comparison to the other sequences. The fascinating motifs are *Tadakabadha, Ramavivaha, Parsuramabheta, Saptatalabheda, Ravanara Chatrabhanga, Lankagada, Nagaphasa, Saktibheda, Kumbhakarna nidrabhanga, Rama Ravana yuddha and Ramapattabhiseka.*

The painting of Lankagada, the fort of Lanka is visually striking for its unique composition. It is an arieal view of the fort town in schematic planning within a squre space, a compound wall running around crowned with battlements. The fort has four gateways *(simahadvara)* guarded by lions at the top. The main entrance is provided with steps shown in profile.The fort town is segmented into nine squre compartment. In the central compartment, meant to be the palace, stands Ravana majestically commanding over his possession. He is about to leave the fort preceeded by three body guards with drawn up swords. On three directions behind the entrance gates, the centries keep watch over the fort. On the top right most compartment Ravana is seated cross legged perhaps getting dressed up by an attendant for the war. This is the preceeding sequence to the central motif. The fort looks like a chess board with decorated border lines and interesting floral bands. The monkey retinue of Rama has crossed over the sea and lay siege of the fort on three sides while on the remaining top side Rama and Laksmana assisted by Bibhisana peep into the fort to assess the movement of demon army. The confidence and morale of the monkeys are quite high which could be gauged from their jubiliant activities like jumping and climbing over the wall. On the right side bottom compartment one sees a half finished sketch probably meant to be the fort goddess Lanka devi. From this side Sugriva climbs the steps accompanied by Hanumana with an attempt to enter into the fort.

Although we have religious map motifs in Orissan painting tradition like the Thia-badhia, the Lankagada is the only military map with rigid geometrical and schematical planning reminiscent of the military map-Siege of Bhilwai painting of earlier date in the collection of Jaipur City Palace Museum. Lankagada paintings has the distinction of being the only military map in Orissan painting.

Ravanara Chatrabhanga painting which is on the rightside of the Lankagada motif raminds us of the similar thematic rendering at Virancinarayana. Rama is seated on a deer skin on mountain holding a sharp arrow on the right hand and the bow in the left. Sugriva with another monkey squatting close to him is probably terrified at Ravan who is approaching on his flying chariot. Bibhisana stands behind pointing at Ravana and persuading Rama to shoot at, while Hanumana massages the right foot. Jamvabana stands fold handed in front of Rama accompnied by a monkey. Laksmana, regardless of the happenings is seen in a relaxed mood straightening the arrows while Jamvabana assists him.

The hill is composed of several semihemispherical domes placed one above the other in a pyramidial order. The cavities inside the domes are occupied by monkeys and bears enged in dance and music. One could see the reccurance of *dhumpa* played by monkeys with the help of sticks. Keeping to the tune of the orchestra, monkeys and bears are beating gongs, playing on *dholki* and *swaramardala*, a typical musical instrument of South Orissa. The melody of the orchestra alomst could be heard from the excited dance stances the bears put up. On the hill portion, one could see the flying divinities and jumping monkeys.

Another fascinating painting is Nagaphasa in which two large cobras make nine coils, one in the centre and eight surrounding it resembling a *mandala* diagram. Rama is seen caught in the middle one, the cobra raising its hood above his head ready to strike. Laksmana and the monkeys are tied in the smaller coils with arrows pierced into their bodies. Because of the heroic status, Rama has been painted larger compared to the other figures. Garuda, the *vahana* (carrier) of Visnu has arrived in the scene, shown outside the coil with folded hands ready to rescue his master Rama who is the incarnation of Visnu. It appears that one of the cobras has realised the presence of its arch enemy, the Garuda and shown as if sliding away from the knot. This is also another new motif in the Orissan painting tradition.*Kumbhkarnaidrabhanaga* or rousing Kumbhakarna from slumber is a witty visual narration in which Kumbhakarna is shown in two sequence lying in his *palanka* and getting up. The bodies below the waist of both these figures are conjoined as if belonging to one human being. The two torsoes branch off in two different directions without creating visual incongruous. The demons are creating music to end Kumbhakarna's slumber alround his sleeping bed. Goats are being brought for his breakfast.

Though small but interesting is a panel showing Surpanakha approaching Rama in Pancavati. Laksmana cutting of Surpanakha's nose at his brother's behest, and Ravan carrying away Sita in his flying chariot. Ravana sits crosslegged inside the chariot with the tiny Sita placed at one end of the deck. Jatayu, the mythical bird, attacks Ravana who hits it back with his sword. Another figure with folded hands is seen above Ravana's chariot, probably appealing for the release of Sita.

In the Laskmana Saktiveda panel, the painter has been able to create a state of panicky and remorse. Laksmana lays unconscious struck by the arrow of Indrajita on the lap of Rama.Bibhisana is seated next to Rama consoling him.In another sequence, at the feet of Laskmana Rama is aiming his bow and arrow in anger at Indrajita. Hanumana is seen carrying the Gandhamardana hill with herbal medicinal plant. A monkey is jumping over to unload the hill from Hanumana's head. Two other monkeys are running to Jamvabana with the herbal plants plucked from the hill. In the *Saptatalabheda* painting, the long stately palm trees stand at equidistances which reminds of similar renderings in the *Gitagovinda* illustrations. Fan shaped foliages crown the top of the elongated plam trunks. Rama stands at a corner and aims his bow loaded with an arrow ready to pierce the trees. The force with which Rama pulls the string of the bow is remarkably shown in his bodily stance. Sugriva stands behind Rama pointing to him the trees which Rama has to strike. At Virancinarayana the *sala* trees are painted instead of *tala* trees. The descriptions in the *Ramayana* mention about both *sala* and *tala* trees.

The *Sitavivaha* painting seems to represent a local marriage ceremony in a South Orissan palace. A large *Purna-kumbha* with a green coconut and a garland of flowers on the top, flanked by two fishes.occupy a sizeable space at the foot of the steps. The steps lead to a raised *mandapa* where Rama taking Sita along meets his mother Kausalya while Dasaratha stands behind. Two pipers and a drummer are playing welcome music on the steps. On the other side creating symmetry is a conch blower joing the musicians. In the ground floor of the *mandapa*, Rama is seated on a decorated bed with his newly wed wife Sita. Rama fondly lifts Sita's face touching delicately at her chin with his right hand finger, holding her in close embrace. Sita lifts her left hand as if in mild protest. Outside this apartment are four women of the royal palace holding offerings in baskets.On another wall Sita's *svayamvara* has been painted. Sita is seated with *varanamala* attended by a *sakhi* inside a raised *mandapa*. Steps descend to the floor where in another sequence Rama accepts Sita delicately stretching his right hand above her shoulder. Two of Sita's companions escort her to Rama. Inside two arched niches of the ground floor two maids are seated watching the *mandapa*. *Rama Ravana Yuddha* engages the best attention of the painter. In a long panel two armies confront each other being led by their respective commanders. Ravana approaches the battle field on his four wheeled chariot driven by his charioter. The chariot is a proto type of the wooden cars used in the car festival. Rahu guards the wheels and two stand on the deck. The chariot is covered with applique cloth, decorated with chatras and trasas. A monkey is already seen tramppled under the wheels. On the opposite side, Rama rides a bigger chariot with eight wheels four on either sides,Laksmana and Bibhisana stand on the deck behind Rama. Rama pulls his bow with great force to strike at Ravana. Sugriva walks behind the chariot while Hanumana is shown above as if guarding. The decoration of Rama's chariot are similar to that of Ravana.

The background of the battle scence or the sky is filled with arrow shot from either side forming a mosaic pattern. On the top frame, the view of the heaven with gods and goddess assembled to watch the battle is depicted. The two interesting motifs in this top panel are the rising sun in a single wheeled

chariot on the left and the setting sun on a two wheeled chariot on the right indicating that the battle between Rama and Ravan was over the same day. The other three conspicuous paintings are *Tadakabadha*, *Rama Parsurama bheta* and the *Ramapattabhiseka*. In the *Tadakabadha* painting two rsis are performing *jaga* by puting oblations of ghee into the holy fire. Tadaka the demoness is seen hoovering over the place. A timid rsi is fleeing the ritual place for fear of life. Rama has raised his bow to strike at the demoness Tadaka.

Rama after his marriage with Sita returns to Ayodhya in a chariot. Parsurama hearing the news of breaking of Siva's bow by Rama gets agitated and stops the movement of Rams's chariot and offers a challenge. Rama has been shown in two sequnces once inside the chariot with Sita and at other place dealing with Parsurama and vanquishing his pride.

Ramapattabhiseka motif is a standardised compositional arrangement we often find at Orissa temple murals and on *pata* paintings. In this painting Rama is seated in *virasana*, left hand stretched with the bow while in the right he holds a *sayaka*, arrow. On his right Laksmana holds aloft the chatra. On his left Jamvabana stands alongwith Sugriva and Bibhisana. Hanumana masages his left foot.

Laksmi Narayana Swamy temple in Matham Sariapalli is also a two chambered structure situated inside a huge complex. A large portion of the complex is in a dilapidated condition. It is roughly divided into two large segments. The front segment which houses a wide open yard accomodates apartments for retainers, visiting devotees and the store. The temple is in the back segment. We gathered from the matha records that Syamasundara Babaji, disciple of Govardhana Babaji laid the foundation for the construction of the Laksmi Narayana Swamy temple within the "matham premises". Govardhana Dasa Babaji was the *mahanta* for some time before AD 1890. It is presumed that Syamasundara Dasa started the construction of the temple at the close of the nineteenth century. Bhaktarama Dasa Babaji, the next *mahanta* completed the construction "constructed the temple of Sri Narayan Swamy Garu" and purchased several landed properties for the matha. The paintings have been done at the begining of this century. It is sated in the records that Vamana Dasa Babaji migrated from Patrapura in Ganjam District to Sariapalli and established this matha at the biginning of the nineteeth century. This link with the disctrict of Ganjam is again resumed when Bhagabana Dasa Babaji, the grand disciple of Brajaraja Dasa Babaji and great-grand disciple of Bhaktarama Dasa Babaji became the *mahanta* of the matha at Badabaranga and Sri Seetha Carana Dasa Babaji of Narayana Swamy matha resurmed the mahantship of another matha at Bomakei in the district of Ganjam. Because of these links, we are led to believe that painters from Ganjam have painted this matha.

The *jagamahana kotha* which contains paintings has four arched opeings. The arch on the western side leads to the sanctum. The paintings have been done on the jambs as well as on the spaces above the arches. Electrical fittings at places cover the painted panels. The smoke and soot of the oil wick lamps have given a hazy dark coating to the painting making it difficult to photograph. Alongwith *Ramayana*, we also find *Bhagavata* paintings. The schematic planning of the paintings are given at diagrams VII, IX, X, XI. On the south wall under cused niches Siva and Brahma have been painted

as guardian figures paying their respects to the enshrined deity inside. This is a *citrakara* tradition in Thiabadhia *pata* where Siva and Brahma are painted on either side of the shrine housing the trinity. Interstingly enough we find Siva and Brahma as guardian figures in stone on the main entrance of the Jagannatha temple at Dherakote in the district of Ganjam. On the horizontal panels above these large Siva and Brahma figures, devotees in prostration, the sankirtanists with Nitai and Gauranga are painted. The prostrating devotees remind us of the similar figures in the Thia badhia paintings at Virancinarayana.

The northwall contains Narada and Garuda as guardian figures under large painted niches. Above and on both sides of the arched opening long horizonatal panel of *Ramapattabhiseka*, the monkey retinue, have been painted. *Ramapattabhiseka* is in its customary format. On both sides of Rama's throne above, the dancers, *ganika*, prostitutes, gods and goddesses have assembled to have a glance of this grand coronation.

The western wall has more decorative pilasters with seven vertical divisions of varying sizes. Beyond three divisions above the ground, we find paint ings of devotees with folded hands, figure emerging from conch on the left and from the lotus on the right with *gogostha* on floral bands on the capital. The long vertical space above the arch is devoted to the Girigovardhana painting where krsna lifts the mount Govardhana. The top of this panel is treated as the heaven or the sky. Indra, Surya, Vayu and a figure on a chariot are painted. The Eastern wall has Hanumana and Bibhisana as guardian figures inside painted niches. There are similar horizontal bands with figures which are faded out beyond recognition. The larger horizontal panel is devoted to Nrushimha tearing open the bowl of Hrianyaksipu with Brahma and other gods witnessing.

Each of the arched opeings is painted with floral motifs, birds and Rahu heads, The painted niches have similar decorative sides and crowning borders. Also the width portions of the opeing have painted motifs of devotees, padma-mandalas visible only at few places. The upper most horizontal panel on all the walls except on the Western side have *lata*-creeper panels with *rangini* flowers and *sari* birds, On *gogostha* bands, the painter has rendered lively cows with calves and charging bulls.

The long rows of monkeys with drawn up swords, spears, swelling chests and raised tails march with rsis counting rosaries in hands wearing loin cloths, growing matted locks and pointed beards, Some bend forward with devotion.

The paintings at Sariapalli and Kanchili portray two different styles. While the line work in Kanchili is more elaborate and cute, in Sariapalli it is brief and sweeping The workmanship at Kanchili tends to deatailing with ornamentation on costumes while in Sariapalli it is rather plain. The *vanamala* or the large garland of wild flowers is thick and heavy in Kanchili, parallels of which are found in the Caitanya matha painting. The depiction of palm trees, its crowning foliages are quites similar to the palmtree dominating the Vastraharana painting of Caitanya matha. The Chikiti painter is so much adept in delineating the decorative palm foliage that the ends of the garlands worn by Krsna in the same matha resembles the crowning foliages of palmtrees. The rendering of trees in the murals at Chikiti and Kanchili has striking similarities.

The Bada Radhakanta matha in Paralakhemundi provides interesting samples of wall paintings which enrich the repertoire of the South Orissan school. The matha complex is similar to those at Kachilli and Sariapalli with a number of apartments and ritualistic spaces.The paintings adorn the walls of the *orgalivakhara (bhgoamandapa)* of the main shrine inside the complex. The paintings narrate the theme of *Bhagavata* and are painted on the upper reaches of the walls. The *jaladhadi,* river Jamuna with fishes, lotuses, cranes snakes and tortoises, contrasting against a dark indigo background forms the base border to the painted panel spread on the walls on four directions (seo schematic maps XII, XIII, XIV and XV) This border is reminiscent of the similar renderings at Dharakote. The back-ground of the murals are in deep red and the painter has a fascination of captioning the motifs, a feature one can notice in Meliaputti.

The narrative episode in the murals are quite common to those depict the murals of Krsna in other temple and matha murals. The scenes those attract attention are Krsna in *ardhanari vesa* symbolising Krsna and Radha is one like the *ardhanarisvara,* Krsna in Sadaripu-damana-vesa, coronation of Ugrasena, *godahana, rangasala*, a royal procession and another procession of sankirtanists with Caitanya mahaprabhu. As filling motifs the painter has also rendered lion and Gajasimha in bothside of the eastern entrance. On the top of the Gajasimha motif the caption reveals a prayer of the artist.

On otherside of the entrance to the *ratnavedi* on the wall hang two pata paintings fo Jaya and Vijaya door guardians of the Visnu temples. These two paintings are in strict frontal postures. They are mustached and have bearded ovel faces. Trifold prabhamandalas adorn their backs and they stand under *pidha* roofed niches. The pillars of this niche are constituted of two sakhis, *jalakanya* carrying pitchers on their heads. Thses sakhis are dressed in white dotted saries with prominent nose rings and long plaits. The Jaya and Vijaya figures have narrow waists, broad chests, *uttariya* and *angavastra* flapping out as patterned motifs. The body colour is dark blue contrasted pleasantly against the dark red background. The style of this painting differs completely from the murals, but can be compared very well with the anasara-patis executed by a Jayapur citrakara and also with the *pata* paintings in the house shrine of Satynarayana Rajguru of Paralakhemundi painted by Paralakhemundi citrakara published in *Orissa Kunst and Kultur in Nordost Indien* (P. 222 and 225).

On the top of gajasimha motif, the caption reads *"Bindhaniratna Vrudavana hatara kama ethira aparadha ksama karive".* The paintings have been done by a great expert painter namely Vrndavana with the title of Bindhaniratna who seeks pardon for eventual lapses in the painting

The introduction of a winged flying figure with a flower garland in the *rangasabha* painting is a sure influence from the westaern oil paintings and oleographs in the Paralakhemundi palace. Similarly the use of arched open mandapas and the *jhada* glass hanging lamps suspended from the ceiling are features imbibed by the citrakara from the interior decor of the palace. We also come across such arrangements in Dharakote wall paintings. The frontal bearded face of Ugrasena in the coronation painting is the reminiscence of masks done by

citrakaras in Paralakhemundi. The horse in the jamaut painting is well built, wellgroomed and lively and could be related to Deccani miniatures.

The depitction of horses in Orissan painting is few and wherever it appears it has a stereotyped rendering. The horses in Kancivijaya painting tend more towards the wooden prototypes. The human figures as in the other two temples are short statu red. bulky and with rounded limbs, a feature noticed with Ganjam painters.

There is another set of pata paintings done on wooden board and displayed in the citramela on the southside of the temple. These paintings are the portraits of the Vaisnava preachers seated with rosaries in hand, They have frontal faces barring one which has a profile. This group reminds of the portraits kept in the Badaodiya matha in Puri and seems to be painted by Vrndavana because they stand close to the devotes of the *jamaut* and smakirtanists painting in physiognomy and expression.

All these pata paintings on wooden boards meant to be worshipped in shrines have a frontality in body stances and rigidity in attitude.

After analysing the three temple murals at Kanchili, Sariapalli and Paralakhemundi, it becomses clearer that these depict three distinct styles of execution and are the works of three master painters belonging to Chikiti, Athagada Mathura and Paralakhemundi. The Meliaputti murals are grouped along with Paralakhemundi. We already know that Vrndavana has done the Paralakhemundi paintings. Gopinatha Maharana of Athagada-Mathura who was responsible for the construction of the double storied structure *(medha)* inside the Kanchili matha comple is most probably the painter of Sariapalli murals and Apanna Mahapatra's family from Chikitigada have painted the Kanchili murals. At the same time one has to bear in mind that most of thse mural painting centres have more than one temples with paintings and already in Paralakhemundi we have noticed wall paintings completely different in style compared to the Bada Radhakanta matha paintings discussed here.

To study the work of master painters belonging to the citrakara tradit ion, the murals will be able to provide the necessary visual material and the future reseach will come up with the names of painters of Buguda mural, Jayantigada mural, Puri murals Digapahandi murals, Jayapur murals, Kosalesvara murals and murals at Srikurmam.

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Shishir Kumar Panda

BOOK REVIEW

A. K. Rath, *Studies on Some Aspects of the History and Culture of Orissa*, Punthi Pustak, Calcutta, 1987, pp. XII + 314, Plates 9, Price - Rs. 240

The present volume contains twenty five research articles which the author has published in different prominent journals such as *The Journal of Andhra Historical Research Society, The Orissa Historical Research Journal, The Indian Historical Quarterly, The Journal of Indian History, Itihasa, Proceedings of the Indian History Congress* etc. The papers deal with various aspects of Orissan history and culture including Pre-history, Archaeology, Art history, Religion, Political history and Epigraphy.

In the field of archaeology, the author has not only dealt with the pre-historic archaeology but also historic archaeology of Orissa. The most important aspect of his reseach is that, for the first time, he has focussed on the rich archaeological remains of the Ganjam district which so far has been neglected by the archaeologists and historians. His papers on "Antiquities of Ganjam" (pp. 170-180), "Mahendragiri" (pp. 181-192), "Krishnagiri and its Archaeological Remains" (pp. 193-202), "Antiquarian Remains of Ghumsar" (pp. 203-214) and "The Temples of Athgada" (pp. 215-221) are based on his field studies which prove the author's knowledge in scientific use of archaeological data and training in field archaeology.

In the field of religion, the author has not only dealt with Buddhism, Jainism, Śaivism and Vaisṇavism but also with the tribal autochthonous Goddesses of Orissa, particularly of Ganjam district. In these papers the author has taken into account the archaeological findings as well as antiquarian remains. He has also used the socio-anthropological data to show the aryanisation of tribal Goddesses.

In the paper, "Did the Guptas Rule over Orissa?" (pp. 144-152), the author has rightly challenged the theory given by D.C. Sircar that Orissa was included in the Gupta empire. He has analysed and discussed all the arguments given by D.C. Sircar and on the basis of internal and external evidences disproves them logically. But this subject has already been dealt by scholars like S.N. Rajaguru and N. K. Sahu beforehand. "A Note on the Vigraha Dynasty" (pp. 136-143) deals with a minor dynasty of Orissa in detail.

The volume also includes two edited articles on two copperplate grants. The author has edited the copperplates in detail including the text, translation and historical notes which also prove his knowledge in Orissan palaeography. The Khargaprasad Copperplate of Vinitatuṅga" (pp. 228-244) throw some new light on the history of the Tuṅgas. The author states, "...in the light of the present plate it is quite clear that the Tuṅgas were originally ruling over the kingdom of the country of *Samasta Gondrama* and that Vinitatunga after defeating his enemy king at

Yamagartamaṇḍala annexed the same in his Kingdom" (p 231) "The Orissa State Museum Plates of Aniyaṅkabhīma III" (pp. 245-290) is one of the largest copper plate grants of the Later Eastern Gaṅgas consisting of five copper plates is edited here in detail. Besides the usual Gaṅga *praśasti*, genealogy, achievements of the kings, the plates record of grant of one hundred and twenty five and half *vāṭis* of land to six groups of brahmanas belonging to different *gotras* and *pravaras*. This grant throws interesting light not only on the political history of the Later Eastern Gaṅgas but also on the colonisation of the brahmanas in Puri District through land donations in medieval Orissa.

The arrangements of the articles in the said volume is defective. It would have been more scientific had the author arranged them into different sections, such as : Archaeology, Art history, Religion, Political history and Epigraphy etc. There are some printing mistakes. Also the volume lacks a Bibliography. The author should have given a Bibliography for ready references to the scholars and researchers.

In spite of the drawbacks, the author deserves praise for bringing together all these articles into a single volume for the benefit of the students and scholars. In the present volume, he has brought his wide range of scholarship, masterly grasp of the archaeological sources and deep understanding of the Orissan history and culture. No doubt this volume will add an important contribution to the study of Orissan history and culture.

Anadi Sahu

JAINA CULTURE AND TRIBAL RITUALS IN KORAPUT

Koraput district forms the southern part of Orissa, (at present the district has been bifurcated into four districts). There are 3 groups of rivers in this district. One group of rivers discharge their water into the Godavari. The prominent rivers are the Indravati, the Machkund-Sileru and the Kolab-Saberi. Machkund-Sileru form the southern boundary. The Saberi and Sileru form the boundary adjoining Madhya Pradesh. The other set of rivers discharge their waters into the Bay of Bengal. These rivers are Mahendra Tanayā, Vaṁśadhārā, and Nāgābalī. The third river Tel forms boundary of Madhya Pradesh and Orissa. This has joined the Mahānadī at Sonepur of present Subarnapur District. The Vamsadhara basin and Tel river area were prominent for tantric Buddhism. The Indrāvatī basin and the Kolāb basin had seen the rise and fall of different religious faiths. It started with the tribal worship of the wooden gods/ goddesses of indefinite shape called Maunli, or Gaṅgāmā (this could be stone, tree or bamboo). The next was Śaiva worship probably as a result of the brief expedition of Samudragupta during the early fourth century. In the seventh century the Śaila dynasty, a branch of the Eastern Gaṅgas, had established hegemony over this area. This dynasty had patronised Śaiva worship. The later addition to the religious faith was the Jaina worship propagated by the Chindaka Nāgas of Cakrakoṭa, which comprised of present Bastar, South-Western part of Koraput District, a part of Kalahandi District upto the Hāthi river. The Chindaka Nāgas ruled over this area from the 11th to 14th century A.D. Due to matrimonial alliance of the Nāga Kings with the Kākatīya Kings of Warangal, Jaina influence came to Koraput area from the 12th Century onwards. Since the area was full of precious stones Jaina traders came from the north and west. As per practice Śrāvaks (Traders) used to give a portion of their profit for establishment of Jaina shrines. Thus, the Indrāvatī-Kolab basin saw a proliferation of Jaina shrines and idols, patronised by kings and merchants. It also saw an assimilation of tribal ways of worship and predominance of non-brahminical priests. It also saw fine examples of temple construction. Crumbling temples of this period are still standing at Subai on the Nandapur-Semiliguda road.

Due to political turmoils, attacks by the Bahamanis, Kutabshahi and the Gajapatis, Baster lost its importance. It was finally subjugated by a branch of the Kākatīyas who had fled the onslaught of the Kutabshahis. With the change in rulers, removal of royal patronage and decline in collection of precious stones, the Jaina shrines and statues were neglected. The Jaina idols, representing non-violence and vegetarianism, were converted to tribal gods and goddesses. They were given the names of Gaṅgāmā (Daṅgardevī), Maunli, Gaṅga Nisani, Bhairavī and some such names to be easily remembered by the tribals and early non-tribal settlers. However, during its hey-days, the Jains rulers and traders never imposed priests from

other places. The local Adivasis and Non-adivasis were engaged as priests, with the avowed objective of preaching non-violence. It is not known as to how some of the Jaina places of worship were transformed into centres of Brahminical worship. It is also not known as to how the Jaina tantric shrines were converted into places of either Vaiṣṇava tantra or Śākta tantra. Even though at some places brahmins became priests the cowherd, the pāika, (Warrior class) the tribal Jani (priest) was retained to perform certain sacrificial obligations. It is a matter to be probed into detail by the Archaeologists, Anthropologists and Sociologists.

With the advent of tantricism and the Jagannatha cult the kings of Nandapur who ruled Koraput from the 15th centuries A.D. started assimilation of different faiths and beliefs in line with the Jagannatha cult of Puri. The peculiar feature of the Jagannatha cult at Puri is that the rites of the Jagannatha temple are inter-linked with the Maṭhas of Puri. Different Maṭhas used to send articles, presents or flowers for use in the Jagannatha temple during different festivals. Similar types of assimilation are noticed in the Kolab-Indravati belt. Whether it is the Mandai festival of *Māgha* or the *Caitra Paraba* or the *Bālijātrā* festival (Fertility) of *Vaiśākh* the Jaina deities converted to Hindu gods were made to establish links with the Jeypore temples. The Kanaka Durgā of Jeypore became the central place of congregation of representatives of different gods and goddesses. The representative was either a bamboo or a bunch of flowers brought from distant Jaina idols or the tribal rounded stones and tree trunks. In order to instil an element of fear and to initiate the tribals into *Vāmācāra* way of tantricism, three idols were installed in a cave near the Bagra falls. The representative coming from the upper reaches of Kolab had to go through the Bagra falls (now the Kolab Hydro-Electricity Project)., before reaching Jeypore. They had to sacrifice a goat or a sheep at the seat of Tantra (Girid Pakhana) before approaching Jeypore town for the *Dasaharā*. Thus the pristine culture of the Jaina idols was lost every where. Places where the idols are still vegetarian, they are addressed as Bhairava or Bhairavi and rituals are that of the Siva temple. Below the proliferation of Jaina idols in the Kolab Indravati basin which will be discussed in a series. Attempt will be made to indicate the types of priests who worship the gods and goddesses and the rituals involved. An attempt also still be made to indicate incantations and diagrams at the time of sacrifice or oblations. It is an attempt to indicate the last vestige of Jaina trantricism vis-a-vis tribal rituals of Koraput district.

For this purpose the Jaina idols are being categorised into seven main groups. The first group is the Ādinātha or the Riṣabhanātha idols. The second group is the Pārśvanātha idols. The third group is the Mahāvīra images. The fourth consists of the Cakreśvarīs. The fifth group is the Padmāvatīs being worshipped as tutelary goddesses. The sixth group is the other Tirthankars and the 24 image statues. The seventh group relates to other sculptures. The involvement of the local population, the link between nearby Jaina or non-Jaina sculptures and the cultural assimilation will be discussed.

Ṛṣabhanāth

Ṛṣabhanāth or Ādinātha, the first Tirthaṅkara of the Jainas had started a revolution against Brahmanical hegemony. He is equated with Visnu. He is also referred to in the *Śrīmad Bhagavat*, the *Agni Purāṇa* and *Manu Smṛti*. His attendant *yakṣa* is the *Gomukha*. *Gomukha* is a bull faced figure. The *Śāsanadevī* is Cakreśvarī. Cakreśvarī could be four handed, six handed, eight handed or even twenty four handed. She is akin to the Vaiṣṇavi of the Vaiṣṇava pantheron. Taking all these factors into consideration the Jaina sculptors have projected the image of Ṛṣabhnātha as representing the Śiva and Viṣṇu ideas. It has to be borne in mind that Jaina Tirthaṅkara has to be naked, young in body and, ordinarily, should be in the *Kāyotsarga* mudrā. There should be a prabha or halo around the head. Attending figures are the *cauri*-bearers. Flying Vidyādharas shower flowers from the top.

Keeping all these ingredients in mind the sculptors had carved out the images in the Kolab basin of Koraput district.

Subai Vaital

The main Kolab river starts from the Pottangi Pachipentha Tahails on the borders of Orissa and Andhra Pradesh. On leaving the high-mountains the river rushes straight into the comparatively plain area and then it meanders through a mountain pass locally known as Subai. At Subai there are crumbling Jaina temples built in the twelfth century. There are many images including that of Rsabhanath. Such a Ṛṣabhanāth image is lying in the open, moss covered and almost forgotten. Instead of being a vegetarian Jaina god it has become a non-vegetarian god accepting sacrifices on every Tuesday. The person who offers the sacrifice of fowl, pigeon or a sheep is a Raṇā. Raṇās are not tribals but belong to the militia of the Eastern Gaṅgas. Probably they had migrated to this area in the seventh Century A.D. Ṛṣabhanāth is being worshipped as Vaitāl here.

The image is about three feet high and two feet wide. The Tirthaṅkara is in *Padmasana*, the *Prabha* quite peculiar, the cauri bearers have girdles, armlets, thick bangle type ornaments and head dress. One of them is touching the body of the Tirthankara. The emblem Bull is elaborately carved below. Attendant *Śāsanadevī* is a four-handed Cakreśvari in *Sukhāsana*.

Ghatiguda Siva

One of the main tributaries of Kolab river is the Kerandi Nala. It originates from the bauxite rich tableau mountains of Panchpat mali and Deomali. The river bed is a mountain pass through which traders and warriors had come to the Kolab basin from the plains of Vaṁśadhārā and Mahendra Tanayā rivers. The moment Kerāṇḍi nalā enters a valley it encounters the temples of the tribals and the Jaina temple. The tribals still offer buffaloes to their shape-less deity called Maunli. Up above a hillock and over-looking the pass is the temple of Ṛṣabhanāth. It is named as a Śiva temple. The height of the image is about three feet. *Gomukha* is clearly visible but the fine carvings of Cakreśvarī are not visible. Rsabhanāth as Śiva is worshipped every Monday. A person of Māli caste offers Puja. No sacrifices are made. Mālis are the first cultivators of the area.

The temple here was similar in design to that of the Subai temple. About seven eight years back the temple collapsed. A new temple was built on the site with the same stones.

Near by, quartz and withered garnets are available in plenty. The river bed might have been the trading area of the precious stone merchants.

Yogarudha Bhairava

As the Kolab river went down from a height of about 3000 feet to the plains of Jeypore, nature created the Bagra waterfall. Above the Bagra water fall at a place known as Deo Danger. There was a Jain centre of worship. A beautiful image of Ṛṣabhanāth is still intact in this area and the ravages of nature have not caused any damage except that of a fissure on the face and body. The prabha is distinct from other Ṛṣabhanāth images. The cauri bearers are elaborately carved, crowned and bedecked with ornaments. There is a two handed Gomukha with a girdle. The four handed Cakreśvarī rides a Garuḍa. Sacrifices are made before the idol. Sacrifice is supervised by a Paraja tribe person. His wife also performs rituals.

Down below, near the old fort in Jeypore town, there is the temple of Kālikā. It is learnt that Meriah (human) sacrifices were performed at this temple till the middle of the nineteenth century. As one enters the Kālikā temple one would be struck by the beautiful black image of Ṛṣabhanāth locally known as Yogarudha Bhairava. He is acting as the *dvārapāla* of the presiding deity. The image is about three feet high. Carvings are excellently preserved. The peculiar features are the four handed Gomukha and the eight handed Cakreśvarī, riding on the Garuḍa.

No sacrifices are offered to this image although the priest offers blood to Kālikā. The priest is a yajurvedi brahmin. The sacrifice for the Kālikā deity is made by a parajā man (Tribal). Slightly away from this temple buffalo sacrifices were being offered to the tribal deity Nakti Daṅgar Dei.

It would be quite interesting to make a study of the four places where Jaina temples were constructed and worship of the idols was taken up. It has been clearly indicated in the *Vāstuvidyā* of the Jainas that a Jaina temple could be built at the place of birth, place of revelation, place of nirvana, near the bank of a river, the sea-shore which is beneficial to the followers of Jainism or a scenic place. It can be seen from the topography of Koraput district that the idols were installed at Ghatiguda, Subai and Kechala as they commanded the mountain passes leading to the old capital of Nandapur State. When the Nandapur State was conquered by the Chindaka Nāgas of Bastar they might have found Jeypore as the resting place after a long journey from Jagdalpur via Jamunda. Subai was near the Dombgoda and it must have taken sometime for the Chindaka Nāgas to conquer this area.

A portion of Jeypore is still referred to as Jaina Nagar.

The Jaina monks might have found it convenient to preach at these places during caturmasya and the royal patronage might have been available in abundance because of the strategic importance of the places.

Shishir Kumar Panda

NOTES AND COMMENTS

A Copper plate Grant of Śrī Caitanyadeva of Khemuṇḍi Kingdom

The said copper plate is in possession of Sri A.T. Rath of Berhampur town. I am grateful to Sri Rath for allowing me to take photograph and copy of the same. On enquiry, he told me that the plate was submitted by a *mahant* as a document to his father late Sri Balakrishna Rath, a leading advocate of Berhampur over a land dispute case.

This is a single copper plate measuring 26.2 cm. in length and 8.8 cm. in breadth. There are altogether 17 lines, the obverse has 9 lines and reverse 8 lines in writing. The record is in a good state of preservation. The letters are deeply cut and can be read without difficulty. On the right side of the obverse, there are two engravings of emblems consisting of a conchshell and the royal symbol. The script and language of the record is Oriya of the late medieval period written in a simple prose style.

The plate mentions two dates. It was issued on 17th *aṅka*, Makara 11th day, Māgha śukla 7th Saturday of the reign period of Śrī Caitanyadeva (A.D. 1806-1828). Further it mentions another date, i.e., 52nd *aṅka* Risabha 7th .day, Jyeṣṭh Krisna 7th Wednesday of Śrī Puruṣottamadeva Mahārāja.

The purpose of the charter is to record the donation of a village Kurimali to the *adhikāri* (caretaker) of Baḍamaṭha, Rādhā Charan Das by Śrī Caitanya Anangabhimadeva, the king of Khemuṇḍi for offering to Lord Śrī Kuñjabihāri. The village was granted with the trees, creepers, boundaries, land and water, treasure, wood, stones, including footpath and cattle track. Thee record also mentions the boundaries of the donated village in detail.

This inscription provides some important information regarding the genealogy of the Gaṅga kings of the Khemuṇḍi kingdom. It informs us that Śrī Caitanyadeva was the nephew and not the son of Śrī Puruṣottamadeva as believed by the scholars.[1]

Notes & reference

1. Scholars are of opinion that Sri Purusottamadeva had four sons, namely Padmanabhadeva, Jagannāthadeva, Chaitanyadeva and Harekṛṣṇadeva. Purusottamadeva was succeded by Padmanābhadeva and Caitanyadeva respectively to the Khemuṇḍi throne. see, B. Panigrahi, *Saṁkhipta Khemuṇḍi Itihāsa* (in oriya), Digapahaṇḍi, 1963, pp. 21-29; Gyānadīpa (in Oriya) Diamond Jublee Souvenir of the Badakhemuṇḍi High School, Digapahaṇḍi, 1976, pp. 34-49.

Personality



Sushil Chandra De - A scholar of eminence, the founder of Orissa State Archives, an able researcher and a historian of excellance. Served as a member of the American History Association for about seven years. Member of Indian Historical Congress, Indian Historical Records Commission, National Committee of Archivist and of several other committees and academic bodies. Sri De has worked meritoriously in several capacities as Curator of Archives, Superintendent of Orissa State Achieves in the Department of Culture and as an Archivist in the Department of History, Utkal University. He has a number of publications to his credit which include, *Guide to Orissa Records in five volumes, History of Freedom Movement in Orissa, vol. I and part vol. v, Story of Freedom Struggle in Orissa, Trend of Political Events in Orissa 1822 - 1936, Political Diary of Orissa, 1936 - 47, Descriptive Catalogue of Orissa Copper plate inscriptions (Ancient and Mediaeval period), Guide to Monuments of Orissa.*

Sri De is even active at the age of eighty two and engaged in pursuit of research and publications in the fields of History and Culture.

The Orissa Historical Research Journal has the opportunity to bring forth an interview with his distinguished scholar.

Q.1 What do you think about the cultural scene in Orissa at present?

Ans. The Youth of Orissa, as in other parts of India, now a days are much more inclined towards western culture than to the traditional culture . This is clearly exhibited by their choice and favour of western type of dress, food, music and dance etc. If this continue unabated, future prospects of our traditional culture will be in dark.

Q 2 How do you assess the role of cultural institutions in Orissa in fostering the cultural values?

Ans. Cultural institutions like Museum, Archaeology, Academies of literature, music, dance, painting, architecture etc. are meant primarily to acquaint our people about the achienvements of our forefathers in the different spheres of our culture and to enthuse them to pick-up the trend and contribute their mite to further glorification of their culture. The cultural institutions of the State should, therefore, be sources of inspiration to the people for the purpose. Unless the officers in charge of these cultural institutions work with a spirit of dedication, the institutions can never be a source of inspiration for the people. The institutions are functioning at present without being effective in impressing the people on the merits of our art and culture.

Q 3 What is your view on Universities of Orissa and their role in promoting research in cultural history of Orissa ?

Ans. Universities in Orissa are at present, formal teaching institutions, conducting examinations of students only. Unless the teachers work with dediction for imparting

knowledege in their respective fields and create interset in the students, the Universtities will function the same way as they are doing now.

Q.4 Don't you think that the inclusion of Orissan History & Culture as a subject from elementary education level in Orissa is essential to develop the Oriya characterin social life?

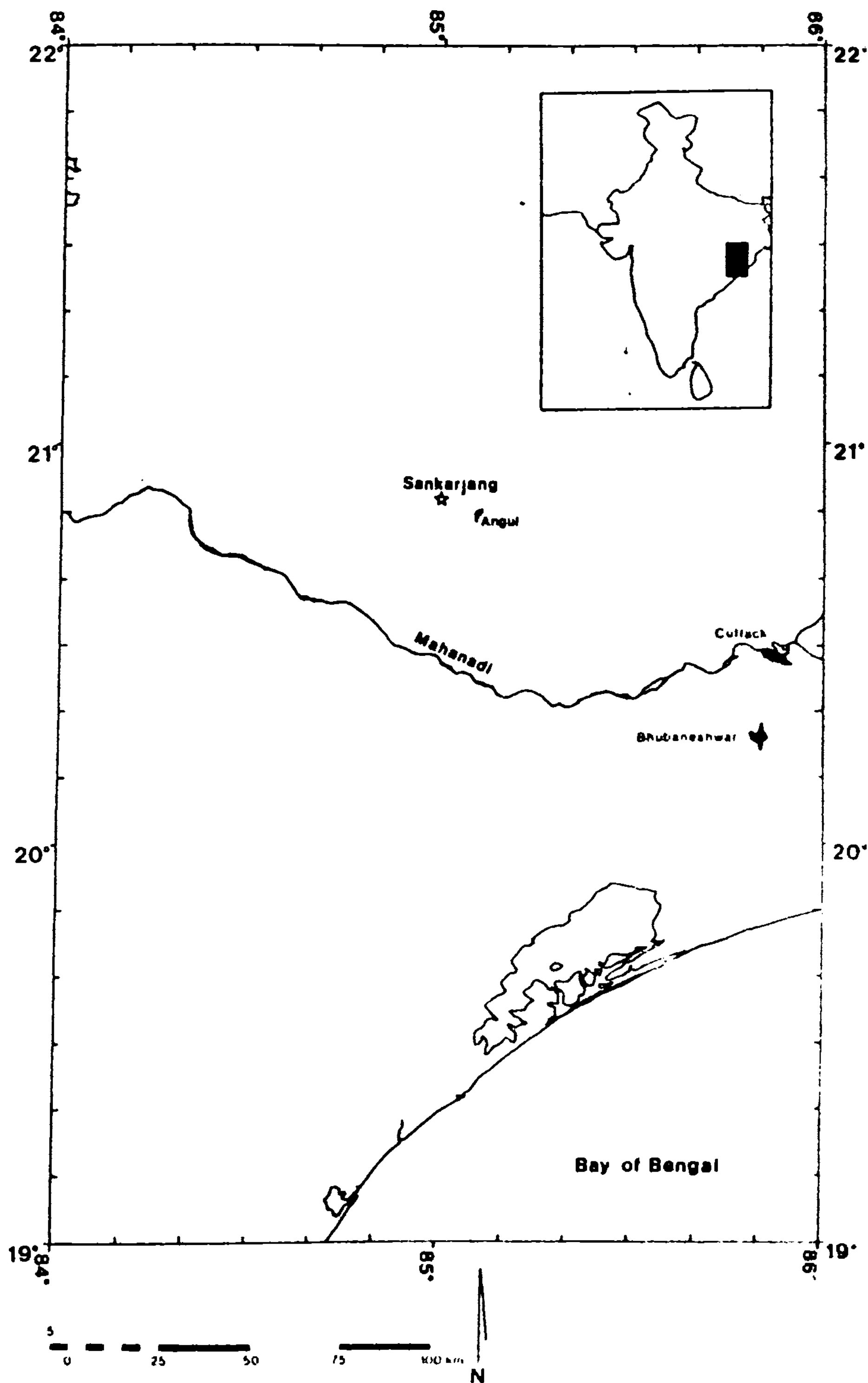
Ans. Elementary knowledge about Orissan culture should be acquired by students in the school stage. They should have a rough idea about our culture and how it attained glorious heights though centuries. This will create interest in the subject among students who are inclined to know in details ablut the culture of Orissa and personalities who are still remembered for their contributions to it in the different spheres. This step may ultimately help some students to take up research in different spheres of our culture and thus, add to our existing knowledge. Some also may come out as eminent persons in different fields of our present day culture.

Q.5 What do you think about research facilities available in Orissa?

Ans. Provision of scholarships or fellowship or facilities to encourage research scholars to undertake research in one's own State or in States outside should be made available. Nonvailability of such facilities on a large scale is the main reason why our scholars are not able to undertake intensive research like scholars of other States are doing.

Q.6 Please comment on status of research in Indology in Orissa?

Ans. The status of research, generally speaking is not very high. Researches on Art History or Indology are undertaken by a very few scholars. Scholars mostly concentrate on History, specially modern history. Research, in most cases are undertaken as a matter of necessity in order to secure better position in a competition for some job. For a lecturer, Ph, D. Degree is a necessity for career promotion. It must be admitted that motivated research in most of the cases, is inferior in standard to spontaneous research.



84°
85°
86°
22°
22°
21°
21°
20°
20°
19°
19°
Sankarjang
Angul
Mahanadi
Cuttack
Bhubaneshwar
Bay of Bengal
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25
50
75
100 km
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Fig - 1 Map

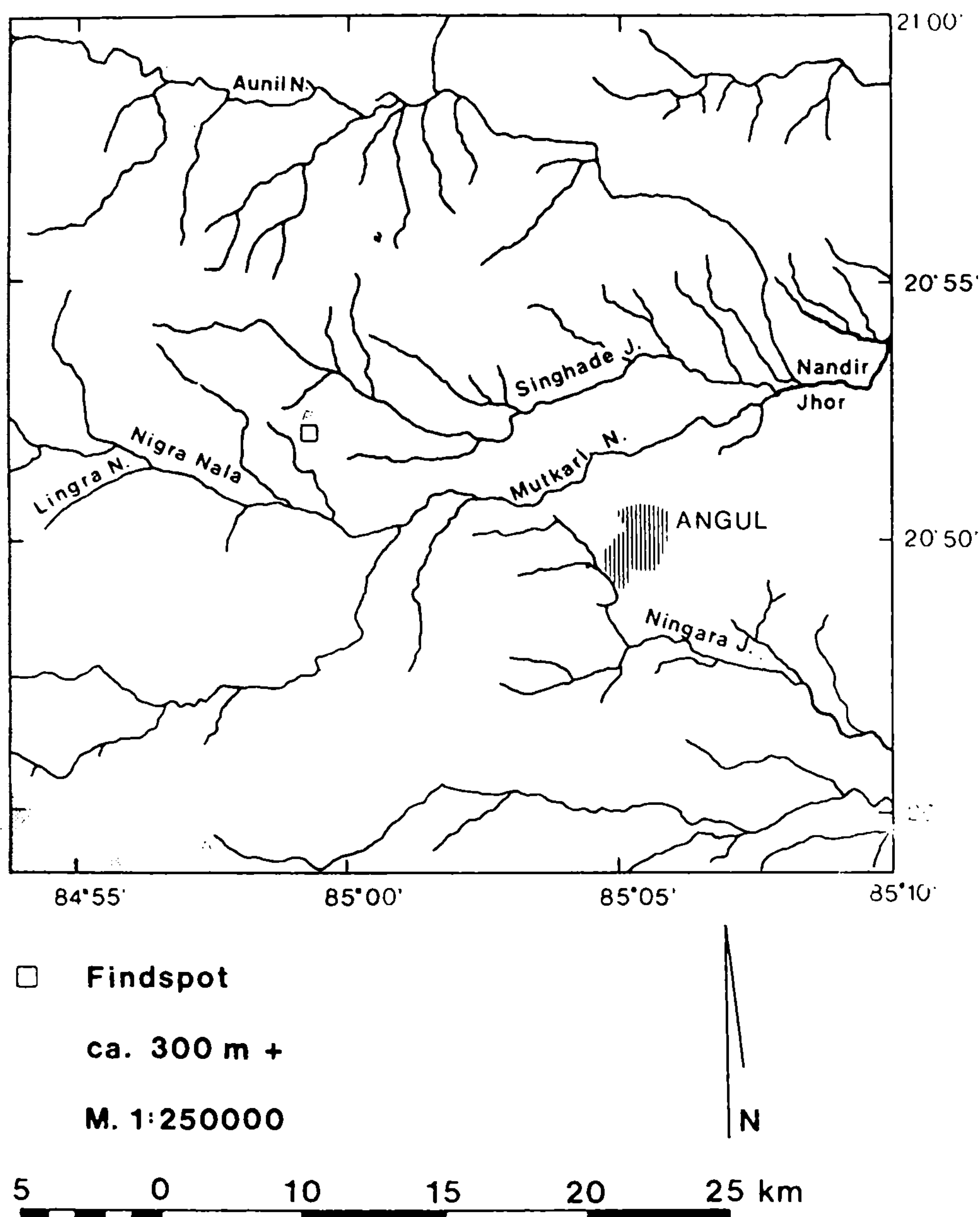


Fig - 2 Map showing the find spot

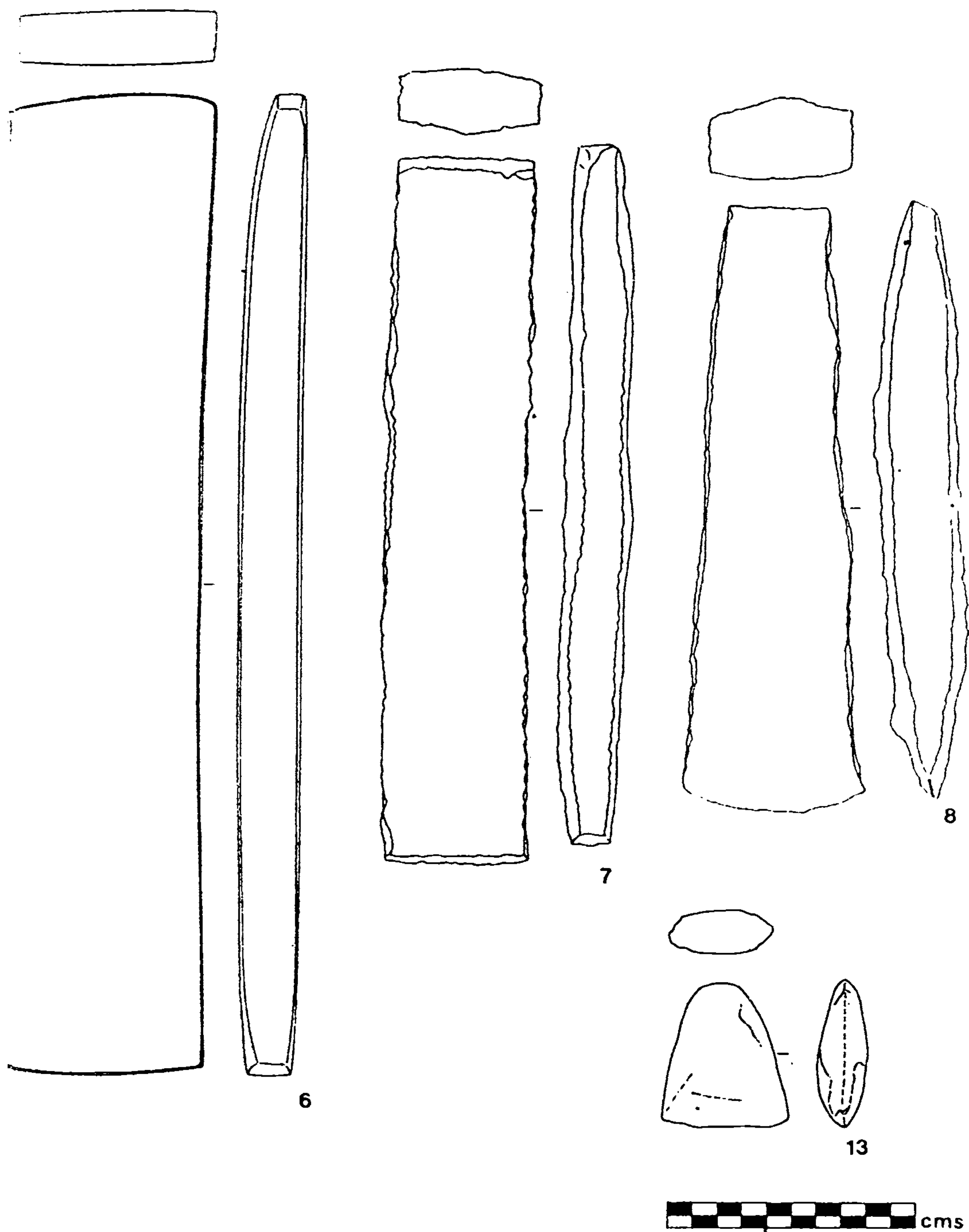
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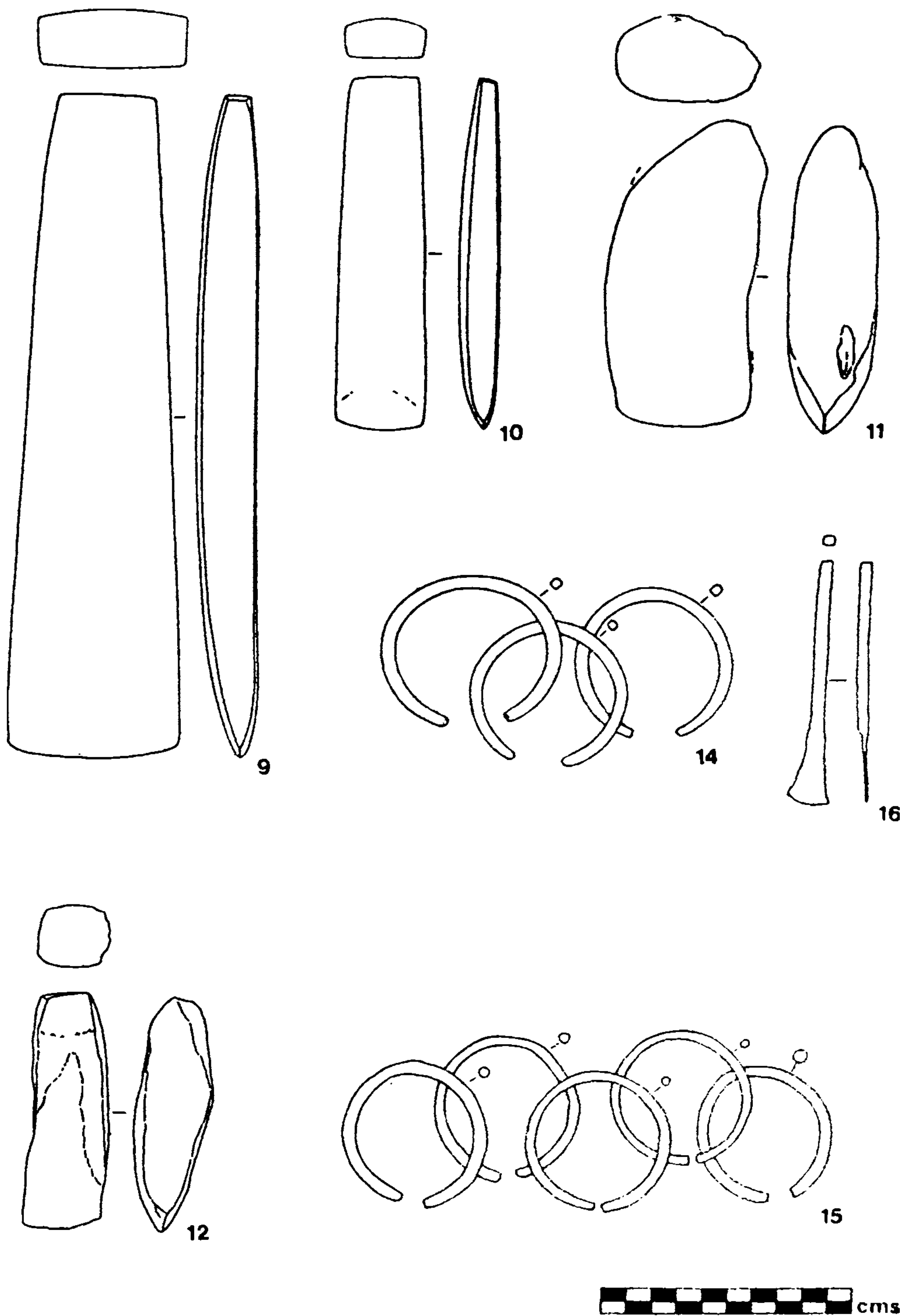
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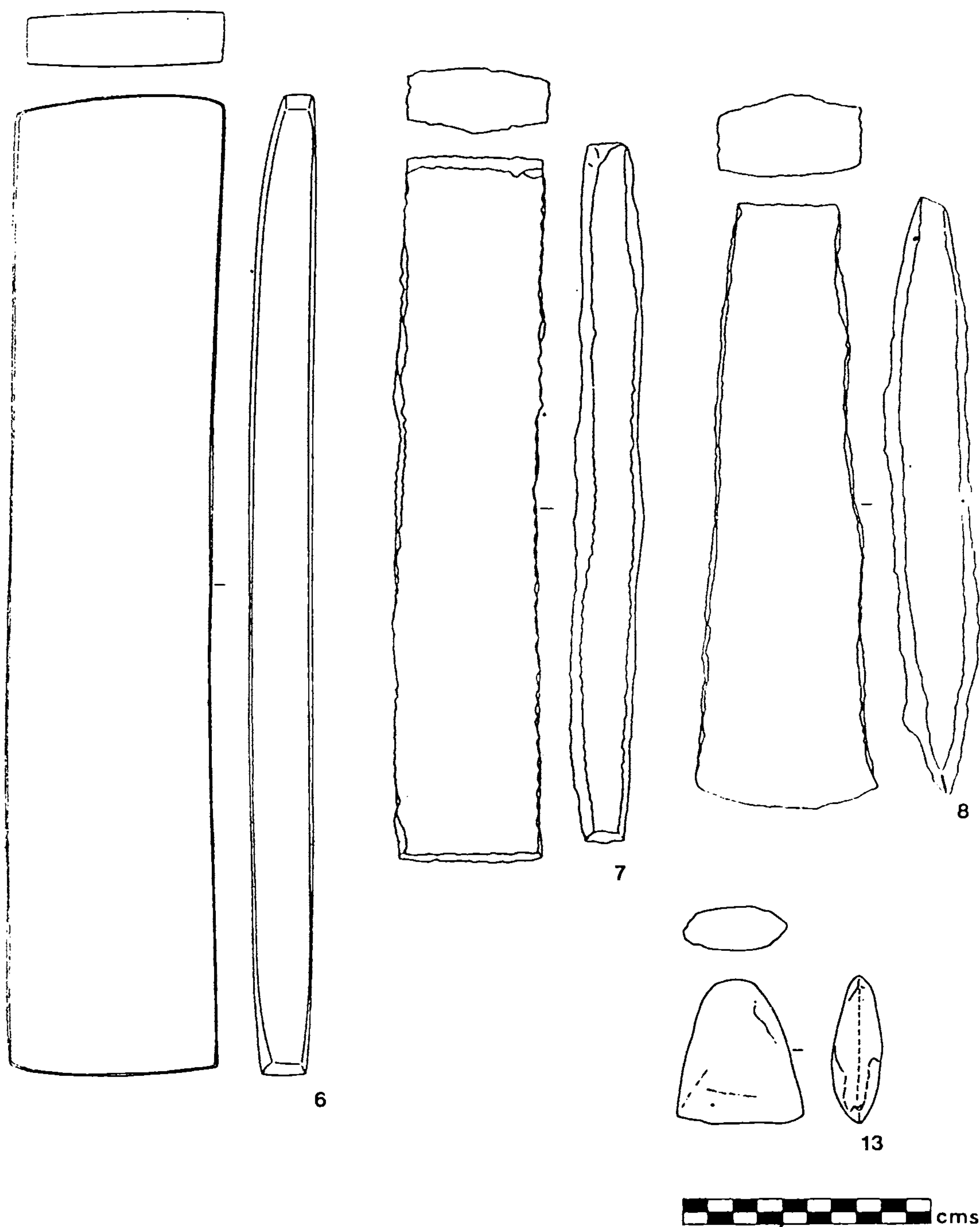
Figs - 3, 4, and 5, Stone bars



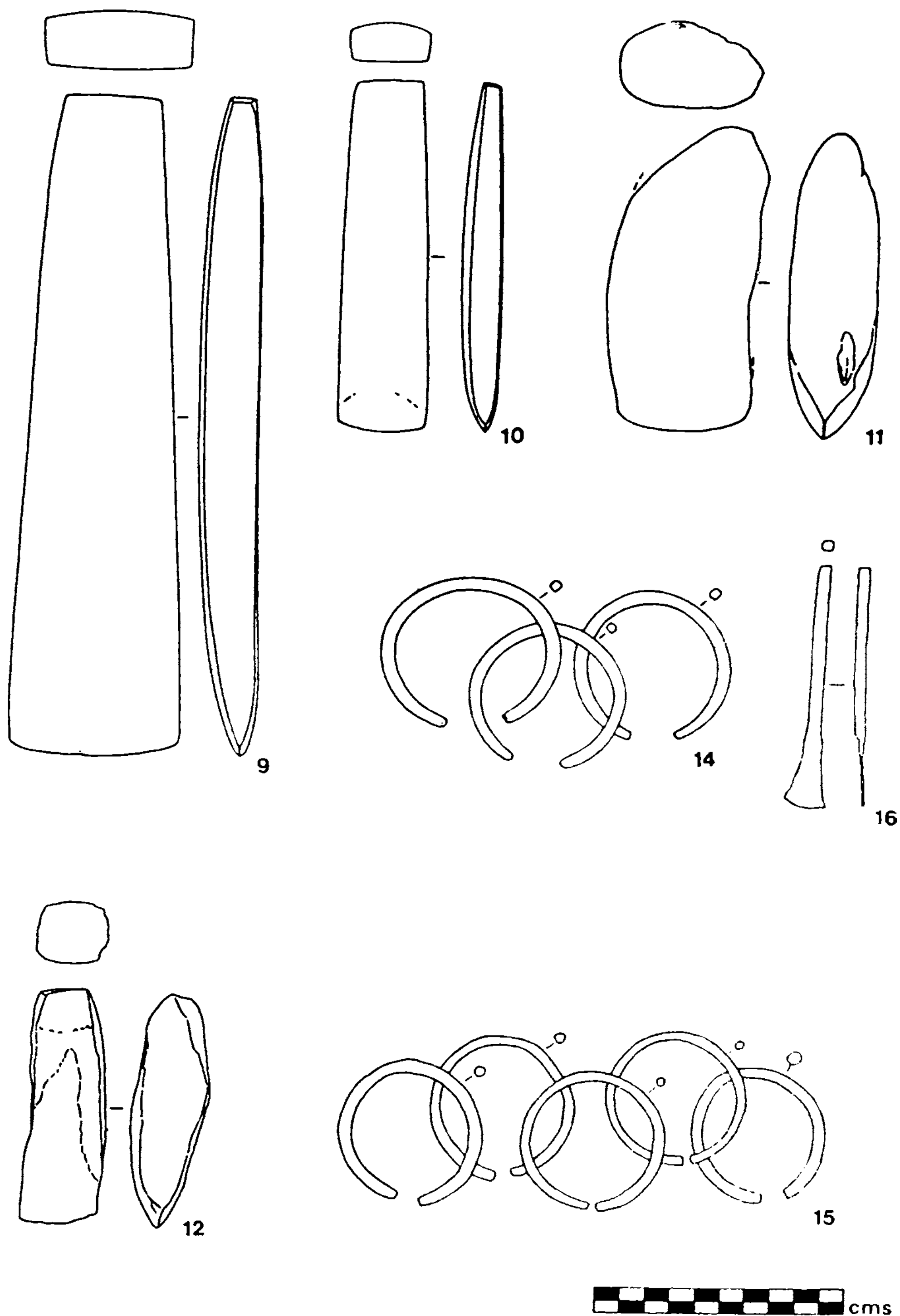
Figs - 6, 7, 8, and 13, Stone bars, adzes and axe



Figs - 9, 10, 11, 12, 14, 15, and 16. adzes, axes copper bangles and small toop



Figs - 6, 7, 8, and 13, Stone bars, adzes and axe



Figs - 9, 10, 11, 12, 14, 15, and 16. adzes, axes copper
bangles and small toop

Fig.17. Ceremonial bar (No. 10) showing clear use-wear

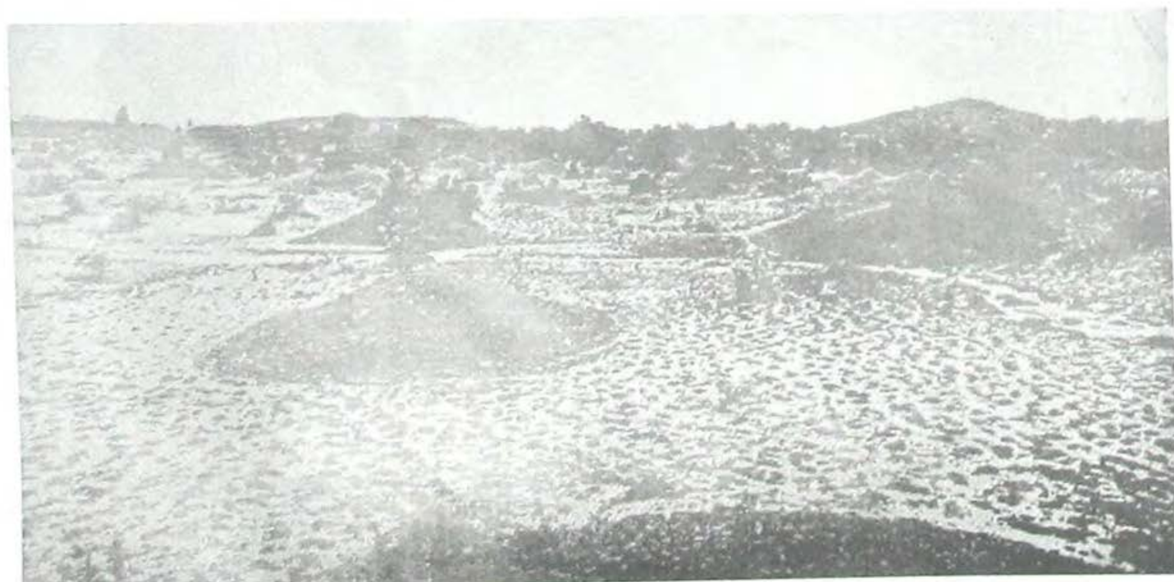


Fig.18. Mounds immediately south of the excavation.

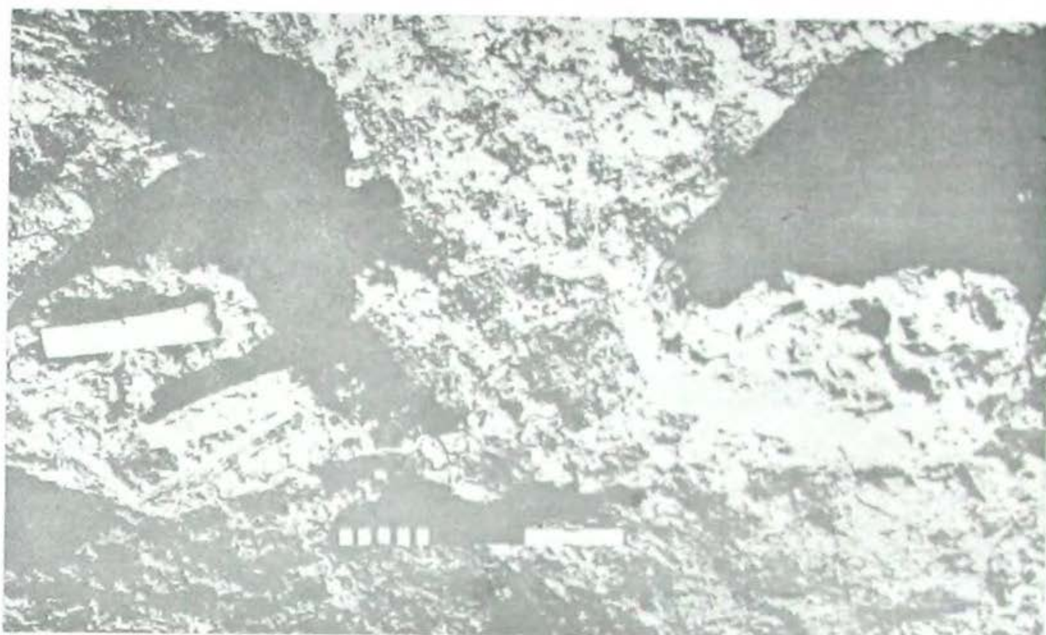
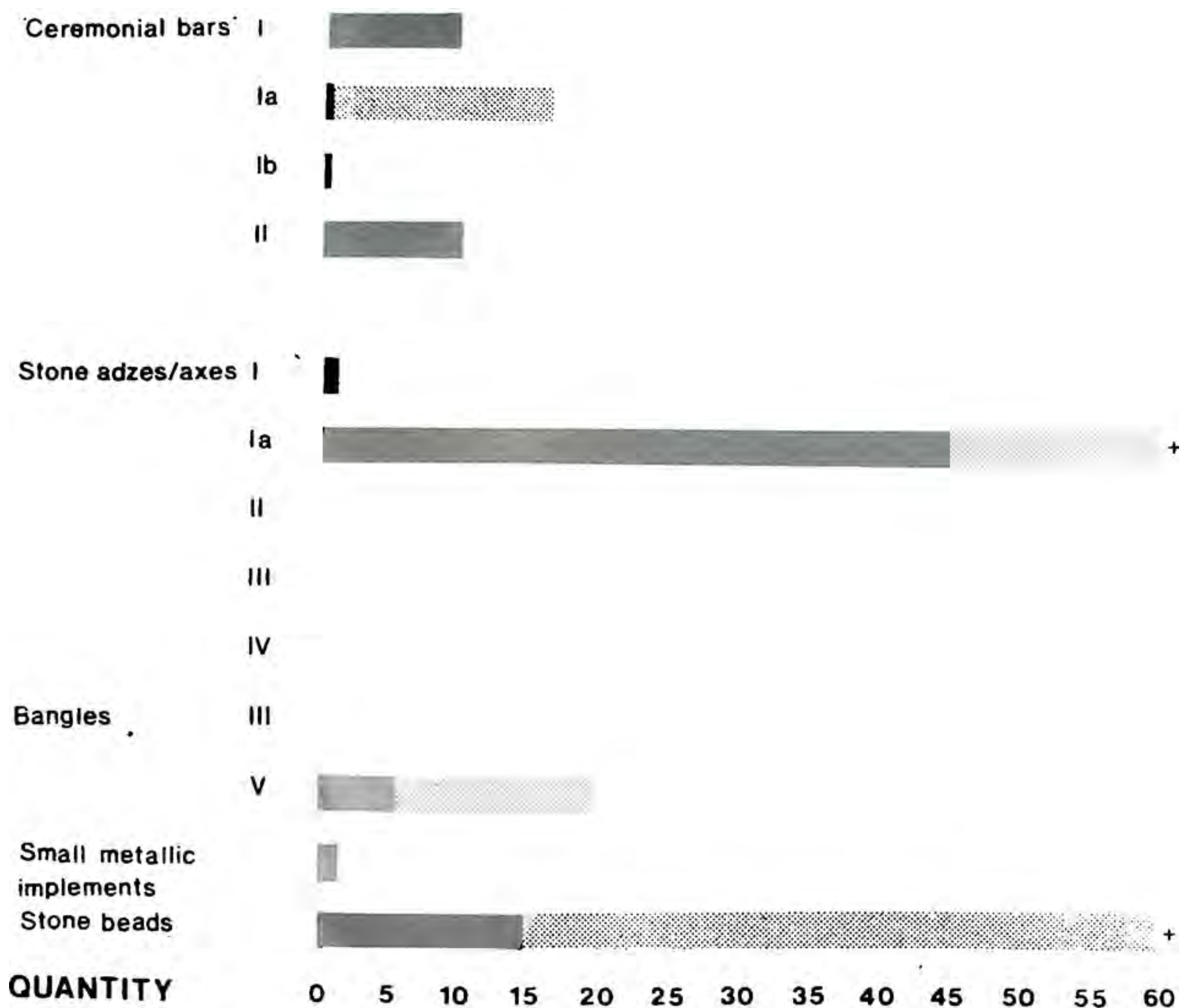


Fig - 19 Skeletal remalivs



Fig - 20 Sections of a mound



Ceremonial bars
I
Ia
Ib
II
Stone adzes/axes
I
Ia
II
III
IV
Bangles
III
V
Small metallic implements
Stone beads
+
+
QUANTITY
0 5 10 15 20 25 30 35 40 45 50 55 60

Fig - 21 Table



Fig - 1



Fig - 2



Fig - 3



Fig - 4



Fig - 16



Fig - 17



Fig - 18



Fig - 19

Fig - 10

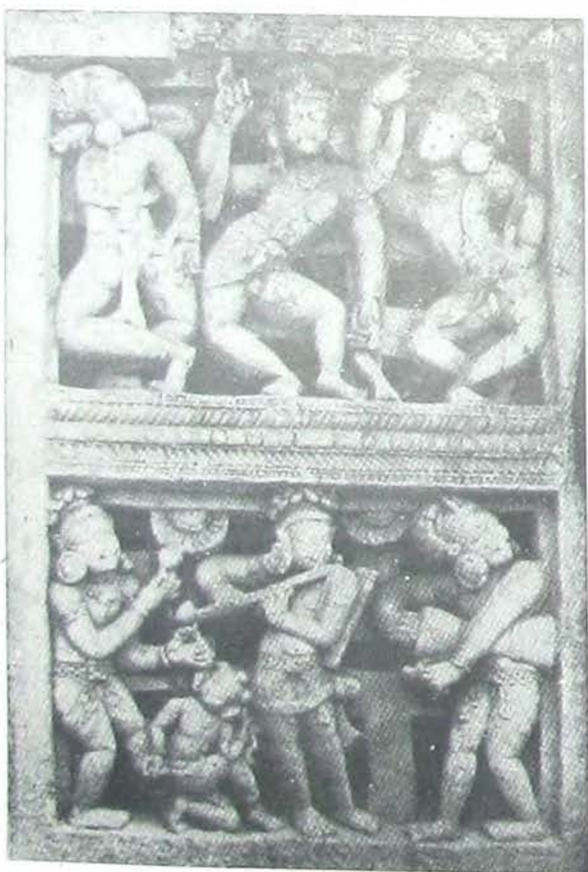


Fig - 11

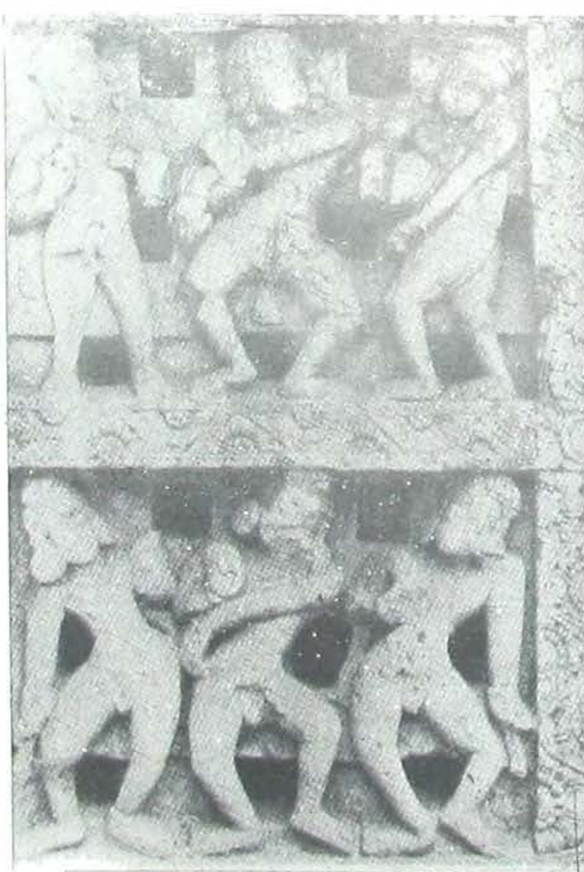


Fig - 12



Fig - 13



Fig - 14



Fig - 15



Fig - 5



Fig - 6



Fig - 7

Fig - 9

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Fig - 21



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Fig - 24

Fig - 25



Fig - 20



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Fig - 23

Fig - 24

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Fig - 31



Fig - 32





Fig - 34



Fig - [illegible]



Fig - 35



Fig.1.

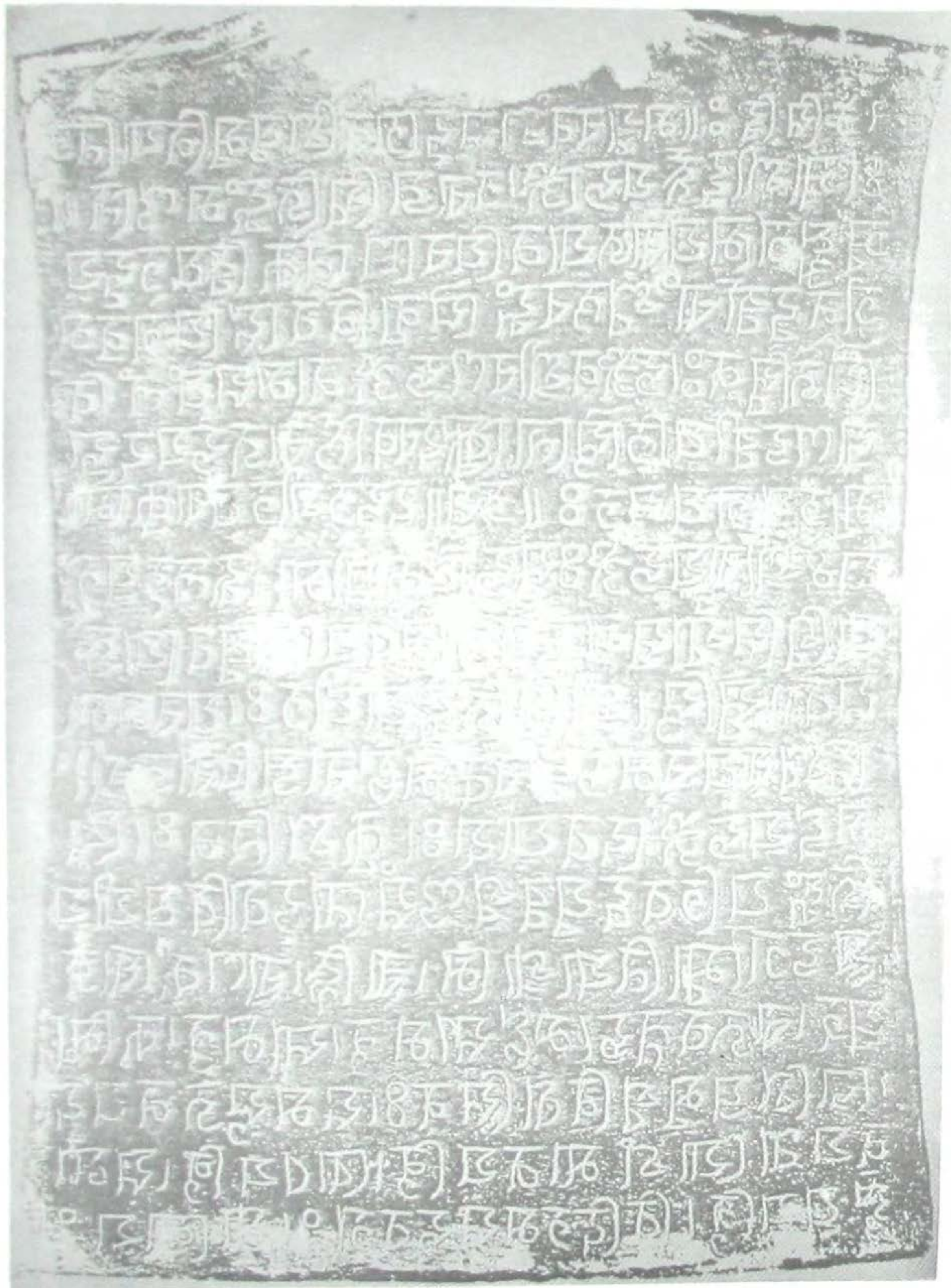


Fig - 2 Panasi copper plate obverse

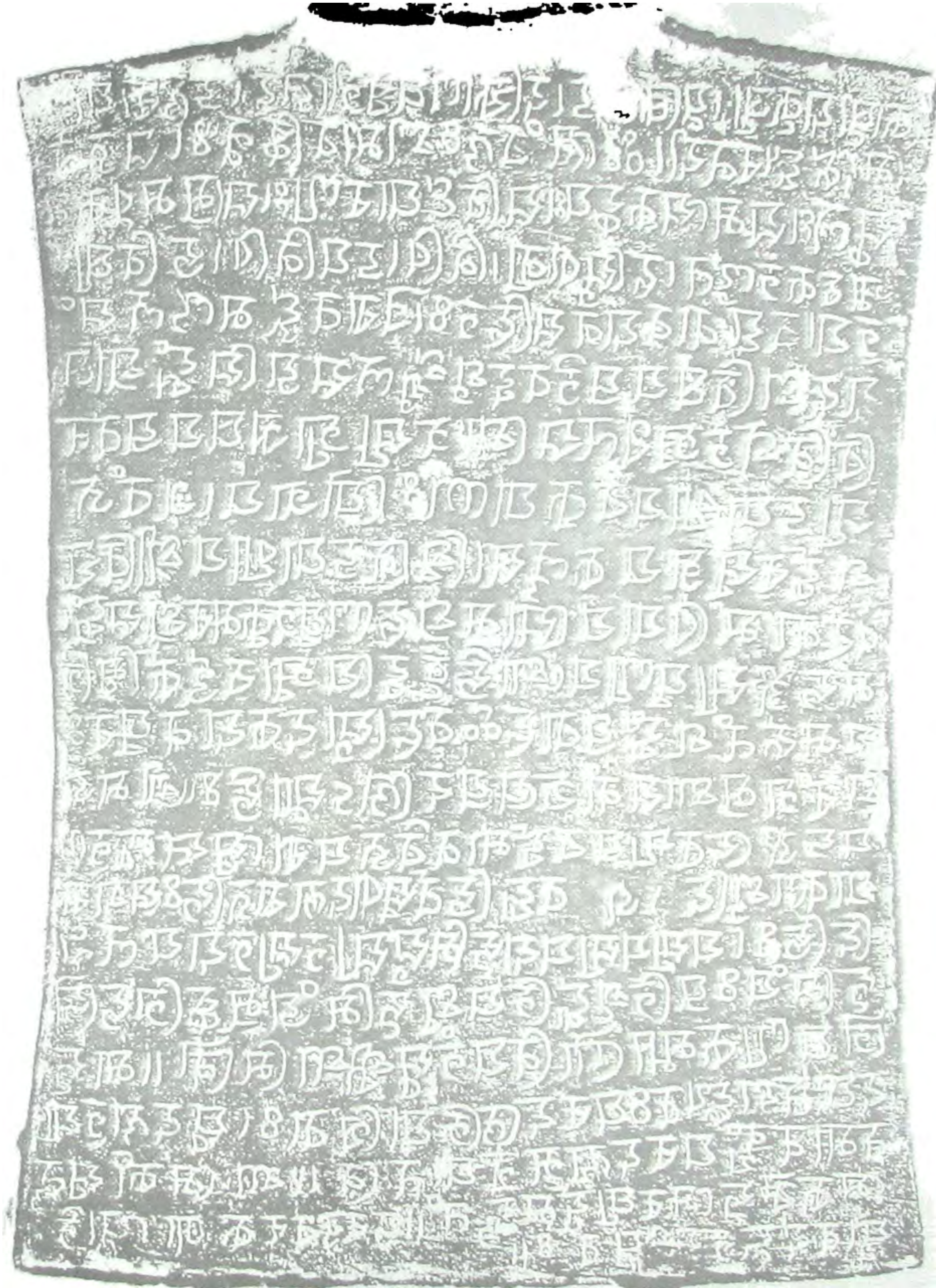


Fig - 3 Panasi copper plate, Reverse

Fig - 1

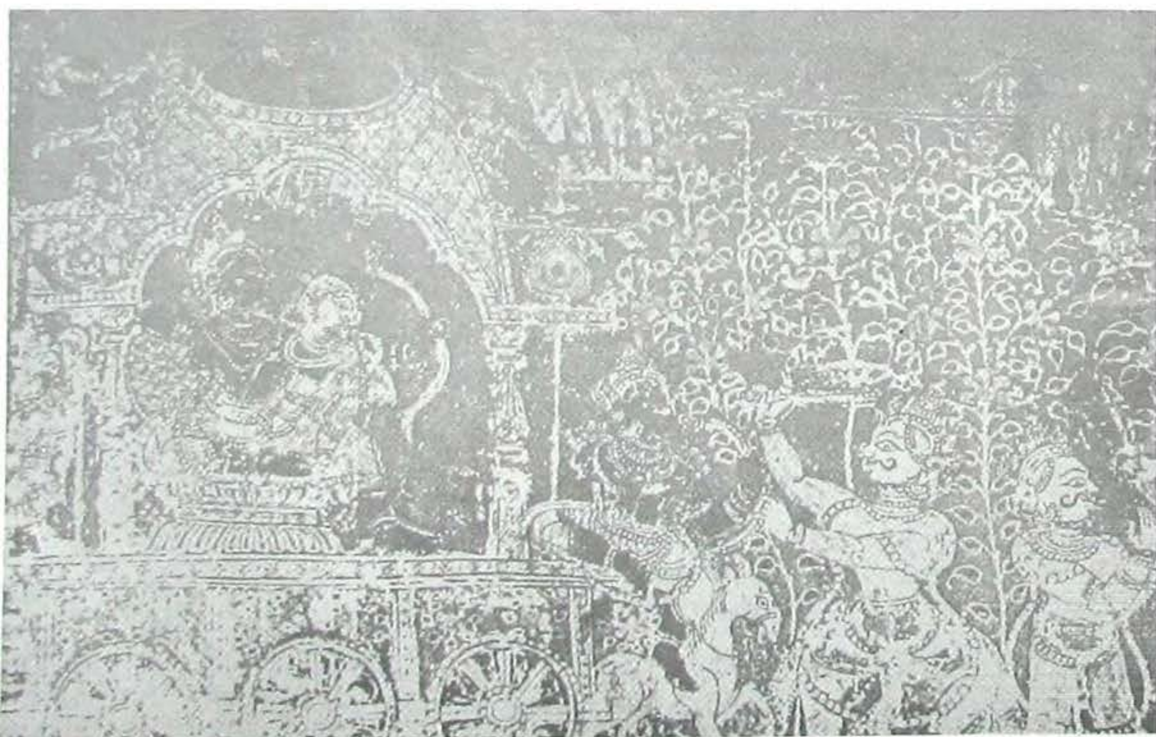


Fig.2.

Fig.3. A War procesion scene with warriers on

Fig - 4 Ravanarachatrabhanga, Jagarnatha matha, Kanchili

Fig - 5 Scene of lankagad, Jagannatha matha, kanchili.



Fig.6. Rama aiming his arrow to break the umbrellas of Ravana's flying chariot, Jagannath matha, Kanchili.

Fig.7 Nagaphasa, Jagannatha matha, Kanchili



Fig.8. Laksmanara Saktibheda, Jagannatha matha, Kanchili.

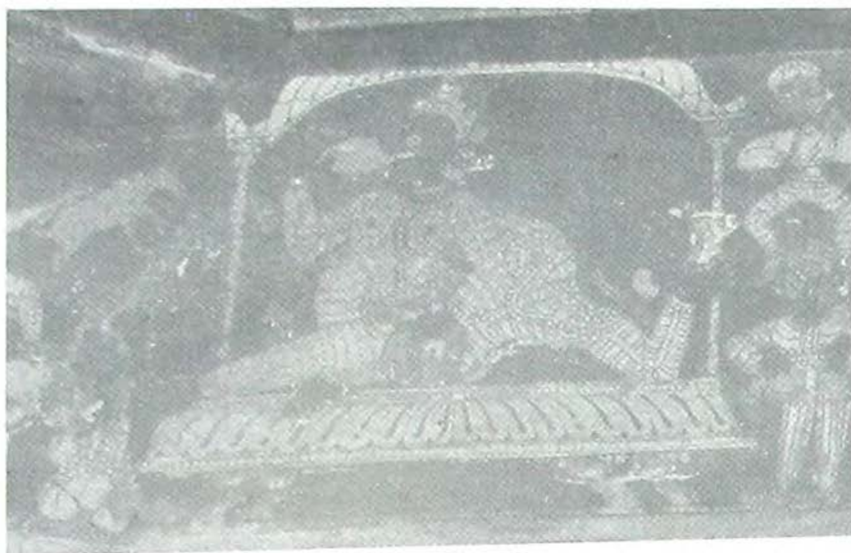


Fig.9. Kumbhakarna nidrabhanga. Jagannatha matha, Kanchili.

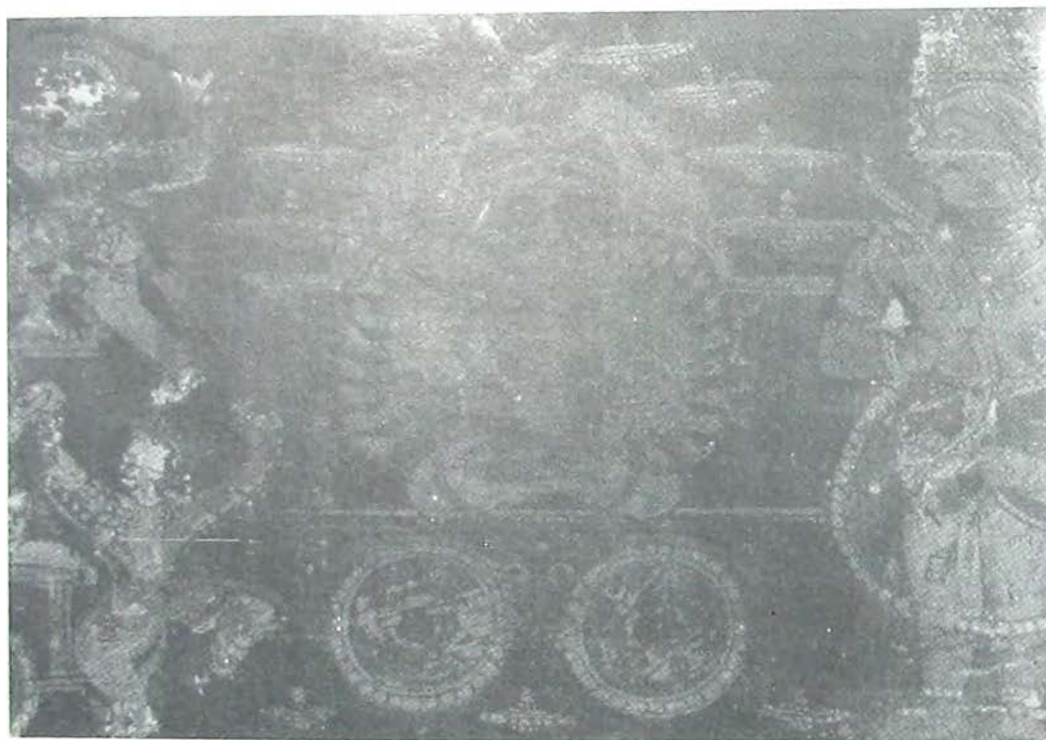


Fig.10. Ravana riding his chariot to the war field, Jagannatha matha, Kanchili.



Fig.11. Ravana aiming his bow and arrow at Rama, portion of the Rama Ravan Yudhapainting Jagannathamath Kanchili.

Fig.12. Rama aiming his bow at Ravana, portion of the Rama Ravana Yudha painting,Jagannathamatha,Kanchili.



Fig.13. Rama pattabhiseka, Rama's coronation, Jagannatha matha, Kanchili.

Fig.14. Interior view of Laksmi Narayana Swamy temple with paintings.

Fig. 15. Hanumana as gardian figure, Laksminarayana Swamy temple, Sariapalli.

Fig. 16. Garuda as gardian figure, Laksminarayana Swamy temple, Sariapalli.



Fig. ı7 Narada, Lakminarayana Swamy temple, Sariapalli.

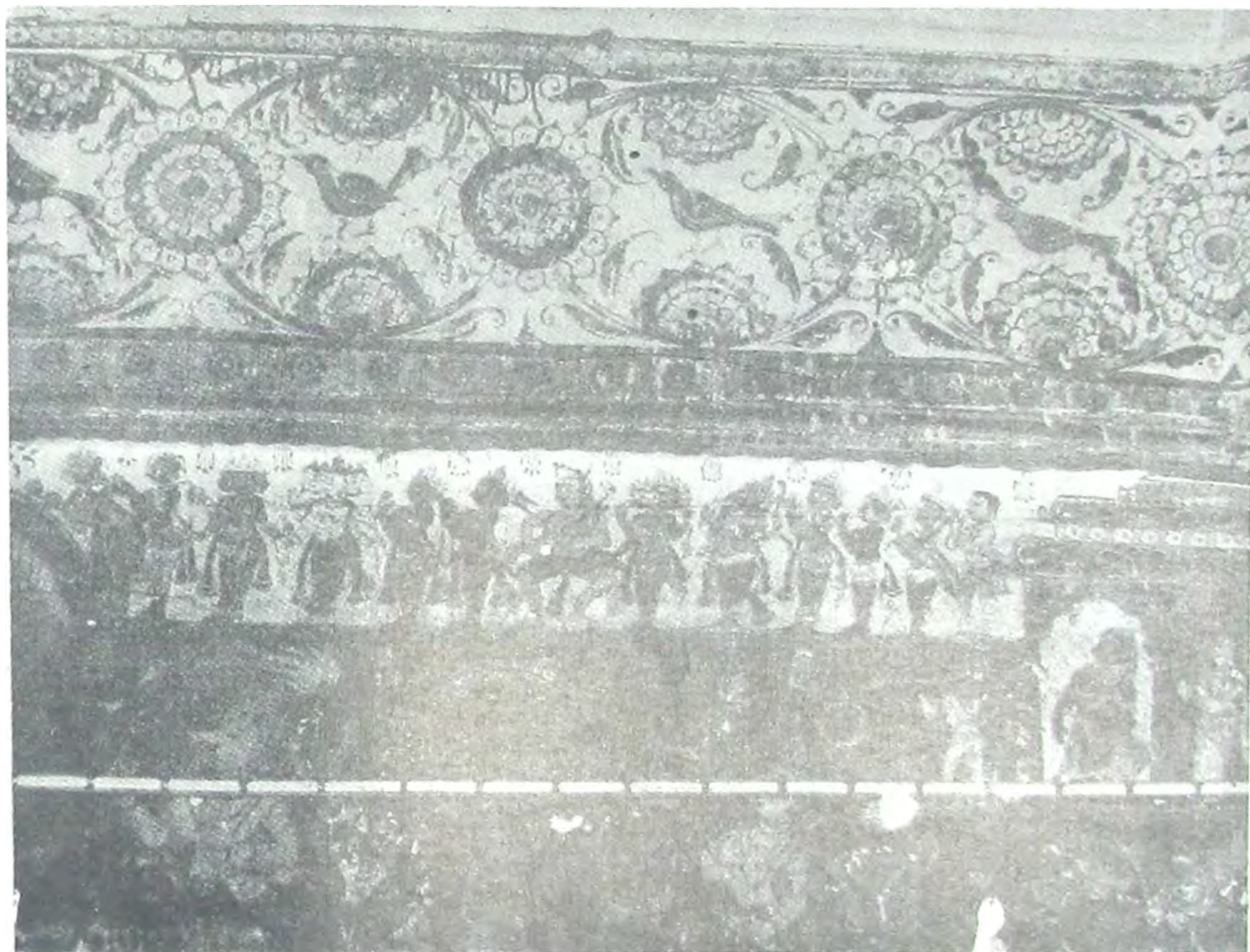


Fig.18. Portions of Ramapattabhiseka with Gods from the heaven paying homage, Laksminarayana Swamtyemple,Sariapalli.



Fig.19. The monkey retinue, Lakminarayana Swamy temple, Sariapalli.



Fig.20. Painting on the wall, Laksminarayana Swamy temple, Sariapalli.

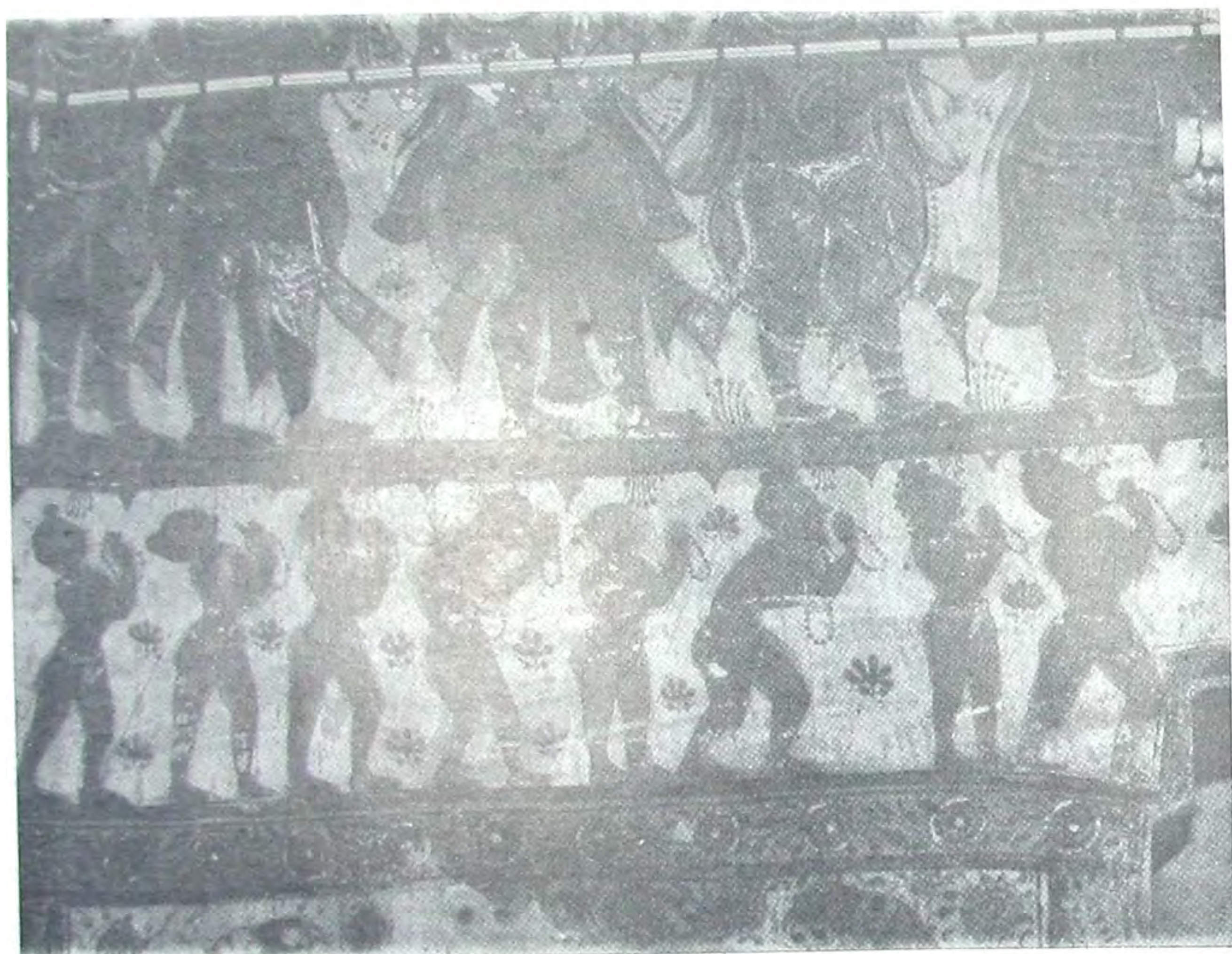


Fig.21. Paintings on the wall, with a panel showing the devotees, Laksminarayana Swamy, Sariapalli.

Fig - 22 A panel showing cow, calf and bulk , Lakshminarayana Swamy teample , Sariapalli.

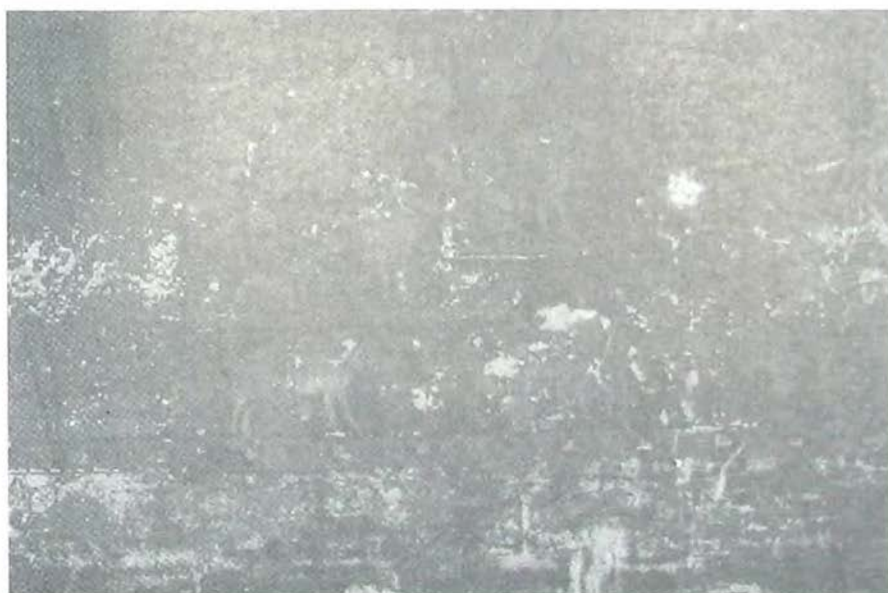


Fig - 23 Gogestha, Radhagovinda matha, Paralakhemandi.



Fig - 24 Detauks if Gogostha,
Baloarama milking the cow,
Radhagovinda matha, Paralakhemandi.



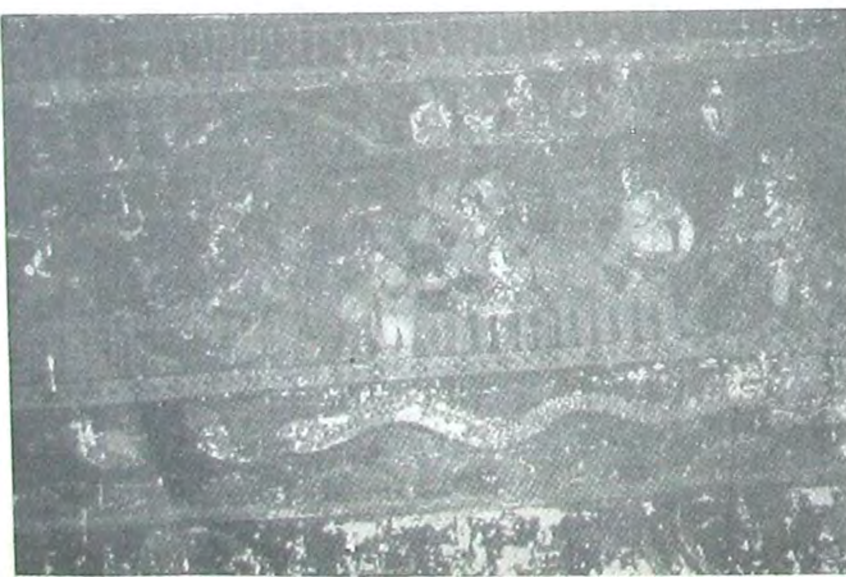


Fig - 26 Rangasabha, Krsna



Fig - 27 Coronation of Ugrasena,

Radhagovinda matha, Paralakhemandi



Fig 28 A group of derotee

Radhagovinda matha



Fig - 29 Jaya, Patapalaing,

Radhagovinda Paralakhemandi,



Fig - 30 A royal procession with derotees holding falgs and



Fig - 32 A flying Gandharba on the top of the Rangasabha påinting Radhagovinda matha, Paralakhemandi.



Fig - 31 Gajasimha malif



Fig.33. Chaitanya dancing with disciples, Radhagovinda matha, Paralakhemundi.